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Price Fraud

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PRICE FRAUD

Wendy Gerwick Couture*

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I. INTRODUCTION

The United States is reeling from the worst financial crisis since the Great Depression.¹ This financial crisis, like many depressions and recessions, emanated from the bursting of an investment bubble.²

Against this backdrop, calls have come from diverse quarters to reassess how our financial system operates in order to prevent the next bubble. Seventh Circuit Judge Richard A. Posner, in his influential book about the crisis called *A Failure of Capitalism*, predicted: "Capitalism will survive the current depression as it did the Great Depression of the 1930s. . . . Yet capitalism may survive only in a compromised form. . . ."³ Nobel Prize-winning economist Paul Krugman issued the following challenge:

We will not achieve the understanding we need, however, unless we are willing to think clearly about our problems and to follow those thoughts wherever they lead. Some people say that our economic problems are structural, with no quick cure available; but I believe that the only important structural obstacles to world prosperity are the obsolete doctrines that clutter the minds of men.⁴

Indeed, then-president of the American Association of Law Schools Rachel Moran directed this charge directly to the legal profession.⁵

¹See *Credit Crisis—The Essentials*, N.Y. TIMES, http://topics.nytimes.com/top/reference/timestopics/subjects/c/credit_crisis/index.html?inline=nyt-classifier (last updated Jan 10, 2011) ("In the fall of 2008, a credit squeeze ballooned into Wall Street's biggest crisis since the Great Depression."); Timothy Geithner, Sec'y, U.S. Dep't of the Treasury, Opening Statement Before the U.S. Senate Banking Committee Financial Regulatory Reform Hearing (June 18, 2009), available at <http://www.treasury.gov/press-center/press-releases/Pages/tg176.aspx> ("Over the past two years, our nation has faced the most severe financial crisis since the Great Depression.").

²RICHARD A. POSNER, *A FAILURE OF CAPITALISM* 13 (2009) ("The current economic emergency is similarly the outgrowth of the bursting of an investment bubble. The bubble started in housing but eventually engulfed the financial industry."); see Seth A. Klarman, *Preface to the Sixth Edition* of BENJAMIN GRAHAM & DAVID L. DODD, *SECURITY ANALYSIS*, at xiii, xxi (6th ed. 2009) ("Capital market manias regularly occur on a grand scale: Japanese stocks in the late 1980s, Internet and technology stocks in 1999 and 2000, subprime mortgage lending in 2006 and 2007, and alternative investments currently.").

³POSNER, *supra* note 2, at 234.

⁴PAUL KRUGMAN, *THE RETURN OF DEPRESSION ECONOMICS AND THE CRISIS OF 2008*, at 191 (2009).

⁵Rachel F. Moran, Presidential Address at 2009 House of Representatives Annual Meeting: Transformative Law (Jan. 6, 2009), available at http://www.aals.org/services_newsletter_

In the ensuing fallout from the current financial crisis, a common refrain is that certain securities, such as mortgage-backed securities (MBS), were fraudulently overpriced. For example, a website created by several affiliated law firms purporting to represent “investors who lost money in the collapse of the subprime mortgage market and related structured investments” poses the question: “Have UBS’s clients and investors been overcharged for subprime securities they purchased?”⁶ MBS investors have filed myriad lawsuits against issuers, alleging that their investments have plummeted in value from their inflated offering price.⁷ Indeed, several commentators have questioned whether this alleged overpricing of securities could, in and of itself, form the basis of a fraud claim.⁸

This article, responding to the calls for innovative thinking about how to prevent the next financial crisis, explores the novel theory of price fraud. In particular, this paper analyzes whether alleged overpricing of securities by issuers and underwriters falls within the scope of securities fraud under Section 10(b) of the Securities Exchange Act of 1934.⁹ In addition, this paper studies the implications of treating this conduct as securities fraud, including whether this innovative application of Section 10(b) to overpricing could help prevent the next financial crisis.

This article proceeds in five parts. Part II argues that, during a market bubble, some issuers and underwriters knowingly sell overpriced securities, which—in turn—contributes to the expansion of the bubble. Part III

presMarch09.php (“At times, the legal profession has been complicit in its own marginalization . . .”).

⁶ See *UBS Overview*, SUBPRIME AND FIXED INCOME INVESTMENT LOSSES, <http://www.subprimelosses.com/ubs-overview.php> (last visited Jan. 8, 2010).

⁷ See, e.g., *Mass. Bricklayers & Masons Trust Funds v. Deutsche Alt-A Sec., Inc.*, 399 B.R. 119, 121 (E.D.N.Y. 2009) (“The Certificates are allegedly no longer marketable at any price near the prices paid by Plaintiffs.”); *Complaint for Violation of Sections 11 and 12 of the Securities Act of 1933*, at 4, *Tsereteli v. Residential Asset Securitization Trust 2006-A8*, 692 F. Supp. 2d 387 (S.D.N.Y. 2010) (No. 08-CV-10637) (“Plaintiff purchased his Senior Certificates at par for \$1,000 per Certificate at the time of the Offering, but now, at the commencement of the action herein, they are valued at \$60.84 per \$100 of par value—a 39% decline in value on a once ‘triple-A’ rated bond.”).

⁸ See Jennifer E. Bethel et al., *Legal and Economic Issues in Litigation Arising from the 2007–08 Credit Crisis*, in *PRUDENT LENDING RESTORED: SECURITIZATION AFTER THE MORTGAGE MELTDOWN* 163, 200 (Yasuyuki Fuchita et al. eds., 2009) (“Another interesting source of potential litigation with respect to CDO purchases is the claim that the pricing of CDO assets or interests therein was inflated relative to the ‘true’ value of the assets or interests.”).

⁹ See 15 U.S.C. § 78k(b) (2006).

analyzes the positive and negative impacts of recognizing the price-fraud theory, concluding that this theory would help prevent the growth of dangerous market bubbles. Part IV shows that the price-fraud theory, although novel, is arguably a viable theory under current securities fraud jurisprudence. Subpart V analyzes how the price-fraud theory compares to recognized securities claims related to pricing, concluding that no current theory covers the same conduct as the price-fraud theory. Finally, Part VI briefly concludes, urging the legal profession to test the price-fraud theory in court.

II. SOME ISSUERS AND UNDERWRITERS KNOWINGLY SELL OVERPRICED SECURITIES, EXACERBATING DANGEROUS ASSET BUBBLES

Asset bubbles form when the market incorrectly prices securities above their intrinsic value.¹⁰ These dangerous bubbles are fed by positive feedback, with high returns becoming a self-fulfilling prophecy.¹¹ Some market participants, without internalizing the negative effects of their behavior, knowingly ride asset bubbles.¹² For example, evidence indicates that some issuers and underwriters knowingly take advantage of bubble markets to sell overvalued securities.¹³ This behavior, although individually rational, is collectively irrational because it contributes to the growth of market bubbles.¹⁴

A. Asset Bubbles Form when Markets Err

An asset bubble exists when the market price of an asset, such as a security, exceeds the asset's intrinsic value.¹⁵ A bubble is characterized by

¹⁰ See POSNER, *supra* note 2, at 75–90 (discussing the formation of asset bubbles); Anna Vander Broek, *Bubble Basics*, FORBES.COM (Oct. 21, 2008), http://www.forbes.com/2008/10/21/bubble-tulipmania-crash-pf-ym-in_avb_1020youngmoney_inl.html.

¹¹ See *supra* note 10.

¹² See *supra* note 10.

¹³ See François Derrien, *IPO Pricing in "Hot" Market Conditions: Who Leaves Money on the Table?*, 60 J. FINANCE 487, 488 (2005) (suggesting issuers "take advantage of 'windows of opportunity' periodically offered by overoptimistic investors").

¹⁴ POSNER, *supra* note 2, at 106.

¹⁵ Broek, *supra* note 10 ("Basically, an economic bubble begins to form when the price of an asset (be it anything from tulips to real estate) becomes grossly inflated compared to its basic value.").

rapidly rising prices that cannot be explained by changing fundamentals.¹⁶

One oft-cited example of a securities bubble is the dot.com boom of the later 1990s and early 2000s.¹⁷ Internet start-up companies, often without a business plan about how to generate revenues, had market capitalizations exceeding those of established, profitable companies.¹⁸ For example, eToys,¹⁹ Pets.com,²⁰ and Netscape²¹ were, in retrospect, wildly overvalued.²²

More recently, mortgage-backed securities—and collateralized debt obligations made up of pools of mortgage-backed securities—were the subject of a bubble market.²³ As succinctly stated in *Fortune* magazine:

¹⁶ See ALAN GREENSPAN, *THE AGE OF TURBULENCE* 177 (2007) (quoting the author's famous December 5, 1996 speech at the American Enterprise Institute's annual dinner and correlating "unduly escalating asset values" with an "asset bubble"); POSNER, *supra* note 2, at 10–11; ROBERT J. SHILLER, *IRRATIONAL EXUBERANCE* 32 (2d ed. 2005) (analyzing a stock market bubble by looking at "factors that have had an effect on the market not warranted by rational analysis of economic fundamentals" (emphasis omitted)).

¹⁷ See Paul Schultz & Mir Zaman, *Do the Individuals Closest to Internet Firms Believe They Are Overvalued?*, 59 J. FIN. ECON. 347, 354–55 (2001).

¹⁸ See *id.* (compiling statistics) ("[T]he 299 firms in the sample that were publicly traded at the end of 1999 had previous quarter revenues of \$8.20 billion and lost \$4.95 billion. . . . For comparison, IBM, Intel, Dell Computer, Amgen, Lucent Technologies and MCI Worldcom combined had a market capitalization of \$1,083 billion, over \$270 billion less than that of the Internet stocks. However, between them these traditional growth stocks had previous quarter revenues of \$59.6 billion; more than 7 times that of all the Internet firms. Their earnings totaled \$7.32 billion as compared to the loss of \$4.95 billion by the Internet companies.").

¹⁹ See SHILLER, *supra* note 16, at 181 (citing eToys as an example of "[o]bvious" [m]ispricing" when comparing its valuation to that of the established toy company Toys "R" Us).

²⁰ See KRUGMAN, *supra* note 4, at 146 (citing "the phenomenon of Pets.com, which turned a dubious business model plus a clever ad campaign into an astonishing valuation").

²¹ See GREENSPAN, *supra* note 16, at 164 ("The Internet gold rush was on. More and more start-ups went public to fantastic valuations. Netscape stock continued to climb; by November the company had a higher market capitalization than Delta Airlines, and Netscape chairman Jim Clark became the first Internet billionaire.").

²² See *Credibility of Credit Ratings, the Investment Decisions Made Based on Those Ratings, and the Financial Crisis: Hearing Before the Fin. Crisis Inquiry Comm'n*, 111th Cong. 248–49 (2010) [hereinafter *Credibility of Credit Ratings: Hearing*] (testimony of Warren E. Buffett, Chairman and CEO of Berkshire Hathaway), available at <http://www.fcic.gov/hearings/testimony/credibility-of-credit-ratings-the-investment-decisions> ("After a while, the rising prices of all internet stocks caused people to be able to raise billions of dollars for things that are nonsensical.").

²³ See *id.* at 9–10 (preliminary remarks of Chairman Phil Angelides) ("In 2006, \$869 billion worth of mortgage securities were AAA-rated by Moody's. 83 percent went on to be

“By now everyone knows that those once wildly popular subprime-backed securities aren’t worth as much as was thought.”²⁴ Investors in mortgage-backed securities have filed a slew of lawsuits against issuers and underwriters, alleging losses from the substantial decline in the market value of their investments.²⁵

1. Markets Err Sometimes

The existence of asset bubbles contradicts the long-held assumption, supported by the efficient-market hypothesis,²⁶ that markets are always right.²⁷ Indeed, a new wave of economic thought recognizes that investors sometimes act irrationally, causing market prices to deviate from fundamental value.²⁸ The Internet bubble is an oft-cited example of a

downgraded. Investors from university endowments to teachers and police officers relying on pension funds suffered heavy losses.”).

²⁴Katie Benner, *Navigating Subprime Securities*, FORTUNE (Aug. 23, 2007), http://money.cnn.com/2007/08/22/news/companies/value_subprime_securities.fortune/index.htm. But see FIN. CRISIS INQUIRY COMM’N, PRELIMINARY STAFF REPORT: SECURITIZATION AND THE MORTGAGE CRISIS 19 (2010) (cautiously noting that the “increased default risk of securitized mortgages may not have been priced in the market”).

²⁵Douglas W. Henkin & Tawfiq S. Rangwala, *Subprime Litigation Against Issuers and Underwriters of Mortgage-Backed Securities—Where Are the Actual Losses?*, 25 REV. BANKING & FIN. SERVICES 1, 2 (2009) (“The theory of damages seemingly being advanced in these cases is that MBS purchasers have suffered compensable ‘losses’ resulting from allegedly substantial declines in the market ‘value’ or ‘price’ of the purchased securities.”).

²⁶Owen A. Lamont & Richard H. Thaler, *Can the Market Add and Subtract? Mispricing in Tech Stock Carve-Outs*, 111 J. POL. ECON. 227, 227 (2003) (“There are two important implications of the efficient market hypothesis. The first is that it is not easy to earn excess returns. The second is that prices are ‘correct’ in the sense that prices reflect fundamental value. This latter implication is, in many ways, more important than the first.”).

²⁷SHILLER, *supra* note 16, at 78 (“Many of the major finance textbooks today, which promote a view of financial markets as working rationally and efficiently, do not provide arguments as to why feedback loops supporting speculative bubbles cannot occur. In fact, they do not even mention bubbles or Ponzi schemes. These books convey a sense of orderly progression in financial markets, of markets that work with mathematical precision.” (footnote omitted)); Klarman, *supra* note 2, at xxxi (“Academics tend to create elegant theories that purport to explain the real world but in fact oversimplify it. One such theory, the Efficient Market Hypothesis (EMH), holds that security prices always and immediately reflect all available information, an idea deeply at odds with Graham and Dodd’s notion that there is great value to fundamental security analysis.”).

²⁸See Dilip Abreu & Markus K. Brunnermeier, *Bubbles and Crashes*, 71 ECONOMETRICA 173, 173 (2003) (“We develop a model that challenges the efficient markets perspective. In particular, we argue that bubbles can survive despite the presence of rational arbitrageurs who are

discrepancy between market prices and fundamental value.²⁹ For example, economists Owen A. Lamont and Richard H. Thaler documented six instances in which technology stock carve-outs were blatantly mispriced by the market.³⁰ The recognition that markets sometimes price securities incorrectly is at the forefront of the national dialogue about the economy, including discussions about the advisability of value investing and mark-to-market accounting.³¹

Value investing, the strategy followed by luminaries such as Warren Buffett,³² is premised on the notion that markets sometimes err.³³ Value

collectively both well-informed and well-financed.”); Kent Daniel et al., *Investor Psychology and Security Market Under- and Overreactions*, 53 J. FINANCE 1839, 1839 (1998) (citing evidence) (“In recent years a body of evidence on security returns has presented a sharp challenge to the traditional view that securities are rationally priced to reflect all publicly available information.”); Lynn A. Stout, *The Unimportance of Being Efficient: An Economic Analysis of Stock Market Pricing and Securities Regulation*, 87 MICH. L. REV. 613, 697 (1988) (“Surely it is irrational for someone to pay \$40 for a ‘hot’ stock whose likely earnings, coldly calculated, are exactly the same as those of a \$20 stock. Nevertheless, the possibility that investors may not rationally value stock is one that has the support of an impressive list of authorities.”); Justin Fox, *Is the Market Rational?*, FORTUNE, Dec. 9, 2002, at 116 (“The organizing principle for this new breed of scholars is not efficient markets but something called behavioral finance. Behavioral finance teaches that stock market investors are irrational, that future stock price movements are at least partly predictable from past behavior, and that careful analysis of past trends and financial reports can pay off.”).

²⁹ See SHILLER, *supra* note 16, at 181 (“There are in fact many examples of financial prices that, it seems, cannot possibly be right. They are regularly reported in the media. Recently, many of these examples have been Internet stocks: judging from their prices, the public appears to have an exaggerated view of their potential.”); Fox, *supra* note 28 (“That real-world phenomenon was the stock market bubble of the late 1990s. According to strict efficient-markets thinking, there must be a rational explanation for what happened. Fama describes those sky-high Internet stock valuations as a risky but not crazy bet that one or two of those money-losing Net companies would end up as big as Microsoft. But he’s almost all alone on this one.”).

³⁰ See Lamont & Thaler, *supra* note 26, at 265 (“We think that a sensible reading of our evidence should cast doubt on the claim that market prices reflect rational valuations because the cases we have studied should be ones that are particularly easy for the market to get right.”).

³¹ See Steve Forbes, *Stop This Horror Before It Starts Again*, FORBES, June 28, 2010, at 15 (“An economic version of the bubonic plague is ready to reemerge: mark-to-market accounting. This rule was the principal reason that the financial disaster of 2007-09 threatened to destroy our financial system.”); Megan McArdle, *What Would Warren Do?*, ATLANTIC MONTHLY, Sept. 2009, at 30, 32 (“Right now, the academic literature suggests that value investing has a modest advantage over a broader market strategy. Better information, more widely available, may continue to erode that edge.”).

³² See Warren E. Buffett, *Foreword* to GRAHAM & DODD, *supra* note 2, at xi (stating that the founders of value investing, Benjamin Graham and David Dodd, “laid out a roadmap for investing

investors perform fundamental analysis to identify undervalued securities, with the expectation that the market will eventually price the security correctly.³⁴ Research firms targeted to value investors, such as Morningstar, premise their “fair value” estimates on the recognition that, in the short run, investors sometimes price stocks incorrectly.³⁵ As explained by Morningstar:

The father of value investing, Benjamin Graham, explained that in the short run, the market is like a voting machine—tallying up which firms are popular and unpopular. But in the long run, the market is like a weighing machine—assessing the substance of the company. Target prices are geared more toward the former, while the Morningstar fair value estimates are oriented toward the latter.³⁶

The proposition that markets sometimes price irrationally also underlies the debate over the suspension of mark-to-market accounting of assets.³⁷ Support for the suspension of mark-to-market accounting is premised on the assertion that active markets sometimes err, while opposition is premised on the notion that incorrect market prices cannot exist in a truly active market.³⁸ Under generally accepted accounting principles (GAAP), companies must record the fair value of certain investment securities on their balance sheets.³⁹ Accounting Standards Codification Topic 820,

that I have now been following for 57 years”).

³³ See Klarman, *supra* note 2, at xv (“Sometimes the markets price securities correctly, other times not.”).

³⁴ See *id.* at xiii (“Value investing, today as in the era of Graham and Dodd, is the practice of purchasing securities or assets for less than they are worth—the proverbial dollar for 50 cents.”).

³⁵ See Debbie S. Wang, *How Fair Value and Target Price Differ*, MORNINGSTAR (July 11, 2003), [http://news.morningstar.com/articlenet/article.aspx?id=93694&pfvgsection=related articles 1](http://news.morningstar.com/articlenet/article.aspx?id=93694&pfvgsection=related%20articles%201) (“Our fair values are meant to provide an estimate of what the stock is worth, irrespective of what investors are willing to pay for it.”).

³⁶ *Id.*

³⁷ See Allan Sloan, Op-Ed., *Don’t Blame Mark-to-Market Accounting*, WASH. POST, Oct. 28, 2008, at D2; Ben Stein, *How to Deal with a 3 A.M. Fear*, N.Y. TIMES, Mar. 8, 2009, § 3 (Business), at 4; Elizabeth Williamson & Kara Scannell, *Momentum Gathers to Ease Mark-to-Market Accounting Rule*, WALL ST. J., Oct. 2, 2008, at A6.

³⁸ See Steve Forbes, Op-Ed., *Obama Repeats Bush’s Worst Market Mistakes*, WALL ST. J., Mar. 6, 2009, at A13; David Reilly, *Elvis Lives, and Mark-to-Market Rules Fuel Crisis*, BLOOMBERG (Mar. 11, 2009), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aD11FOjLK1y4>; Sloan, *supra* note 37, at D2; Williamson & Scannell, *supra* note 37, at A6.

³⁹ Henkin & Rangwala, *supra* note 25, at 5 (“Where a company buys mortgage-backed

formerly published as Statement of Financial Accounting Standards Number 157, defines fair value as “the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.”⁴⁰ If an active market exists for an asset or liability, the market price is the “most reliable evidence of fair value.”⁴¹ As a consequence, during the MBS bubble, firms recorded their MBS and related assets at arguably inflated values.⁴² When the bubble popped, financial institutions were forced to drastically mark down the value of their holdings, arguably exacerbating the effects of the financial crisis.⁴³ Commentators and affected parties—including financial institutions and investors subject to margin calls—argued that the markets had overreacted and that prices were now irrationally low.⁴⁴ In response,

securities as an investment, GAAP requires the company to ‘mark’ the securities for valuation purposes at certain regular intervals. Statement No. 157 of the Financial Accounting Standards Board (‘FAS 157’) guides companies as to how they should measure the ‘fair value’ of specific assets and liabilities (including instruments such as mortgage-backed securities) on their books in order to arrive at the appropriate marks.” (footnote omitted)).

⁴⁰ FAIR VALUE MEASUREMENTS, Statement of Fin. Accounting Standards No. 157, ¶ 5 (Fin. Accounting Standards Bd. 2008).

⁴¹ *Id.* ¶ 24.

⁴² See Henkin & Rangwala, *supra* note 25, at 5 n.15 (“[S]hareholder suits challenging the integrity of a financial institution’s own financial statements have questioned whether the models (and their underlying assumptions) used by companies for fair value measurements under FAS 157 were reasonable and valid.”); Andrew Leonard, *Bipartisan Bailout Folly*, SALON.COM (Oct. 1, 2008), http://www.salon.com/technology/how_the_world_works/2008/10/01/mark_to_market_accounting_2/index.html (“So, mark-to-market accounting contributes both to credit bubbles, which no one on Wall Street ever complains about because they are too busy raking in the cash . . .”).

⁴³ See POSNER, *supra* note 2, at 68 (“Accounting rules required the banks to mark down the value of their mortgage-backed securities and other exotic assets to a reasonable estimate of their current market value. This reevaluation process (‘mark to market’) exposed the banks’ parlous financial state with alarming clarity.”).

⁴⁴ See Steven L. Schwarcz, *Markets, Systemic Risk, and the Subprime Mortgage Crisis*, 61 SMU L. REV. 209, 214 (2008) (“The focus, instead, should be on treating the underlying disease—which in this case is financial-market collapse due to a loss of investor confidence. . . . If market prices of these securities can be raised to levels that more closely reflect their real value, this fear would dissipate.”); Sloan, *supra* note 37, at D2 (“[Financial companies and their allies] argue that marking the value of complex, illiquid securities to artificially low market prices has unnecessarily crippled the U.S. and world financial systems by creating billions of illusory losses on perfectly fine (albeit illiquid) securities, such as collateralized debt obligations linked to mortgages. Markets for these things, the argument goes, are depressed way below true economic value.”); Leonard, *supra* note 42 (quoting University of Oregon economist Mark Thoma) (“The true, fundamental values are different from the values we see today, so, it’s like a negative bubble

Congress explicitly granted the SEC authority to suspend mark-to-market accounting “if the Commission determines that is necessary or appropriate in the public interest and is consistent with the protection of investors.”⁴⁵ The SEC ultimately declined to suspend mark-to-market accounting, instead reminding companies that, in a market that is not active, factors other than market price should influence the fair value determination.⁴⁶

2. Securities Have an Intrinsic Value

Implicit in the definition of an asset bubble, as a discrepancy between market price and fundamental value, is the assertion that an asset has a fundamental, or intrinsic, value. The accepted method of calculating a security’s fundamental value is to perform a discounted cash flow (DCF) analysis.⁴⁷ In essence, this method calculates the net present value of the security’s estimated future cash flows.⁴⁸

For example, Ross Geddes, in *IPOs and Equity Offerings*, outlines the following five steps for valuing a firm through DCF analysis: (1) “forecast

in that sense.”); see also Complaint at 7, *Luminent Mortgage Capital, Inc. v. HSBC Sec. (USA) Inc.*, No. 07-CV-9340 (S.D.N.Y. Oct. 18, 2007) (“HSBC was simply exploiting an aberrational market as a pretext to unreasonably mark down the purported value of the Bonds, demand an unreasonable amount of additional collateral from Plaintiffs, and then unilaterally confiscate the Bonds for itself at an artificially steep discount.”).

⁴⁵ Emergency Economic Stabilization Act of 2008, 12 U.S.C. § 5237 (Supp. II 2009).

⁴⁶ See DIV. OF CORP. FIN., OFFICE OF THE CHIEF ACCOUNTANT, SEC, REPORT AND RECOMMENDATIONS PURSUANT TO SECTION 133 OF THE EMERGENCY ECONOMIC STABILIZATION ACT OF 2008: STUDY ON MARK-TO-MARKET ACCOUNTING 8 (2008), available at <http://www.sec.gov/news/studies/2008/marktomarket123008.pdf>.

⁴⁷ *In re Salomon Analyst Level 3 Litig.*, 350 F. Supp. 2d 477, 485 (S.D.N.Y. 2004) (“Grubman and his analyst team used discounted cash flow (DCF) modeling to support their valuations and target prices—a common practice in the financial industry.”); ROSS GEDDES, *IPOS & EQUITY OFFERINGS* 77 (2003) (“An intrinsic valuation is done by forecasting the firm’s free cash flows and discounting them at the firm’s cost of capital to arrive at a present value. This is called a ‘discounted cash flow’ valuation.”); Roger Lowenstein, *Introduction to Part I: The Essential Lessons of GRAHAM & DODD*, *supra* note 2, at 47 (“‘Intrinsic value’ is the worth of an enterprise to one who owns it ‘for keeps.’ Logically, it must be based on the cash flow that would go to a continuing owner over the long run, as distinct from a speculative assessment of its resale value.”).

⁴⁸ See Merritt B. Fox, *Shelf Registration, Integrated Disclosure, and Underwriter Due Diligence: An Economic Analysis*, 70 VA. L. REV. 1005, 1010 (1984) (equating a security’s “actual value” with “the aggregate future stream of income accruing to its holder discounted to present value”); Henkin & Rangwala, *supra* note 25, at 2 (“[T]he inherent value of an MBS may not be the price at which it can be sold, but rather the yield or income stream that it generates.”).

future cash flows over the next business cycle;" (2) "make an estimate of the value of the company beyond the forecast period;" (3) "[use] an appropriate discount rate [to] calculate the present value of all the cash flows;" (4) "add any excess cash or marketable securities and non-operating assets to determine the firm's enterprise value;" and (5) "adjust for the firm's outstanding debt to determine its equity value."⁴⁹

The valuation of MBS with DCF analysis entails additional complexity because of prepayment risk.⁵⁰ Homeowners are more likely to refinance—thus prepaying—their mortgages when interest rates drop.⁵¹ Therefore, the likelihood of lowered interest rates must be incorporated into the analysis.⁵² Fundamental valuation of complex securities is nonetheless possible, however.⁵³

⁴⁹ GEDDES, *supra* note 47, at 84; *see also* Wang, *supra* note 35 ("To derive the fair value estimates, we use our proprietary discounted cash-flow (DCF) model. This model assumes that the stock's value is equal to the total of the free cash flows the company is expected to generate in the future, discounted back to the present. So, the first step is to project how much cash a firm is likely to produce over a number of years, and subtract the amount needed for capital improvements and increases in working capital to keep the business growing. Whatever profits are left over belong to the shareholders. The second step is to discount those profits to understand how much they are worth today.").

⁵⁰ *See* Henkin & Rangwala, *supra* note 25, at 5 ("[F]air value measurements must be obtained via a complex modeling process that takes into consideration predictions about the economy (such as short-term and long-term interest rates) and the expected performance (e.g. default and prepayment rates) of the particular mortgages underlying a given security.") (citing Jacob Boudoukh et al., *The Pricing and Hedging of Mortgage-Backed Securities*, in ADVANCED FIXED-INCOME VALUATION TOOLS (Narasimhan Jegadeesh & Bruce Tuckman eds., 2000) [hereinafter Boudoukh et al., *The Pricing and Hedging of Mortgage-Backed Securities*]); Jacob Boudoukh et al., *Pricing Mortgage-Backed Securities in a Multifactor Interest Rate Environment: A Multivariate Density Estimation Approach*, 10 REV. FIN. STUDIES 405, 409 (1997) [hereinafter Boudoukh et al., *Pricing Mortgage-Backed Securities*] ("[P]ricing an MBS is not a straightforward discounted cash flow valuation. This is because the timing and nature of a pool's cash flow depends on the prepayment behavior of the holders of the individual mortgages within the pool.").

⁵¹ *See* Boudoukh et al., *Pricing Mortgage-Backed Securities*, *supra* note 50, at 409.

⁵² *See id.*

⁵³ *Subprime Lending and Securitization and Government-Sponsored Enterprises (GSEs): Hearing Before the Fin. Crisis Inquiry Comm'n*, 111th Cong. 307–08 (2010) [hereinafter *Subprime Lending and Securitization: Hearing*] (testimony of Murray C. Barnes, Former Managing Director, Independent Risk, Citigroup, Inc.), available at <http://www.fcic.gov/hearings/testimony/subprime-lending-and-securitization-and-enterprises> (explaining the discounted cash flow valuation of collateralized debt obligations made up of residential mortgage-backed securities); Klarman, *supra* note 2, at xxvi ("Even complex derivatives not imagined in an

B. Asset Bubbles Threaten the Economy

Bubbles are dangerous because they eventually pop, sending asset prices crashing down to a level rationally related to the assets' fundamentals.⁵⁴ The disappearance of asset value in the blink of an eye, especially when compounded through the use of derivatives and synthetic products⁵⁵ in a system with high leverage,⁵⁶ can have devastating impacts.⁵⁷ Indeed, Judge Posner warns that the bursting of an investment bubble can cause the "most dangerous type of recession/depression."⁵⁸

The dot.com bubble popped in 2000, and the market value of Internet stocks plummeted by approximately forty-five percent.⁵⁹ The mortgage-backed securities bubble burst in 2009, with securities originally purchased for millions of dollars now valued at almost nothing.⁶⁰ The impacts of this market implosion are still being felt, with U.S. unemployment at near ten percent,⁶¹ with the U.S. poverty rate at 14.3 percent,⁶² and with one in every 381 homes receiving a foreclosure filing in August 2010.⁶³

earlier era can be scrutinized with the value investor's eye.").

⁵⁴ See Broek, *supra* note 10 ("The bubble bursts when the price drops, causing a crash and usually some severe economic collateral damage.").

⁵⁵ See Complaint at 1, SEC v. Goldman Sachs & Co., No. 10-CV-3229 (S.D.N.Y. 2010) ("Synthetic CDOs like ABACUS 2007-AC1 contributed to the recent financial crisis by magnifying losses associated with the downturn in the United States housing market.").

⁵⁶ See *Credibility of Credit Ratings: Hearing*, *supra* note 22, at 235 (testimony of Warren E. Buffett, Chairman and CEO, Berkshire Hathaway) ("But the size of the pop of the bubble was accentuated in an enormous way because of the leverage that existed in the system and some of it was hidden, you know, off-balance-sheet type things.").

⁵⁷ See GREENSPAN, *supra* note 16, at 177 (quoting the author's famous December 5, 1996 speech at the American Enterprise Institute's annual dinner) ("We as central bankers need not be concerned if a collapsing financial asset bubble does not threaten to impair the real economy, its production, jobs, and price stability. . . . But we should not underestimate, or become complacent about, the complexity of the interactions of asset markets and the economy.").

⁵⁸ POSNER, *supra* note 2, at 10 ("It is depression from within, as it were, and is illustrated by both the depression of the 1930s and the current one, though by other depressions and recessions as well, including the global recession of the early 1990s.").

⁵⁹ See Elizabeth Demers & Baruch Lev, *A Rude Awakening: Internet Shakeout in 2000*, 6 REV. ACCT. STUD. 331, 331 (2001).

⁶⁰ See, e.g., Complaint, *supra* note 55, at 17–18 (alleging that an investor bought \$150 million worth of synthetic CDO notes at face value and that, within months of closing, the notes were "nearly worthless").

⁶¹ BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR, ECONOMIC NEWS RELEASE: EMPLOYMENT SITUATION SUMMARY 1 (2010), available at http://www.bls.gov/news.release/archives/empisit_09032010.pdf.

C. Asset Bubbles Are Fed by Positive Feedback

Scholars disagree about the root causes of asset bubbles,⁶⁴ but they agree that investor psychology feeds the growth of a bubble. Characterizations of this psychological basis include “frenzy,”⁶⁵ “gambler’s excitement,”⁶⁶ a “narcotic,”⁶⁷ “mania,”⁶⁸ and “irrational exuberance.”⁶⁹

This psychological basis operates as a feedback loop.⁷⁰ The initial rise in prices draws investors into the market, which drives prices even higher.⁷¹

⁶² U.S. CENSUS BUREAU, U.S. DEP’T OF COMMERCE, PRESS RELEASE, INCOME, POVERTY, AND HEALTH INSURANCE COVERAGE IN THE UNITED STATES: 2009 (2010), available at http://www.census.gov/newsroom/releases/archives/income_wealth/cb10-144.html.

⁶³ RealtyTrac, *National Real Estate Trends* (Aug. 2010), <http://www.realtytrac.com/trendcenter/>.

⁶⁴ Compare KRUGMAN, *supra* note 4, at 146 (contending that the stock bubble of the 1990s was caused by “extreme optimism about the profit potential of information technology” and “the growing sense of security about the economy”), with POSNER, *supra* note 2, at 75 (identifying as underlying causes of the current financial crisis the housing bubble, low interest rates, complicated financial instruments, and deregulation of financial services), and SHILLER, *supra* note 16, at 32–33 (identifying twelve factors that, amplified by investors’ irrational exuberance, propelled the stock market bubble from 1982 to 2000 and the real estate market bubble beginning in the late 1990s).

⁶⁵ Broek, *supra* note 10 (“A sort of frenzy will be triggered and the price of the asset will skyrocket.”).

⁶⁶ SHILLER, *supra* note 16, at 2 (contending that investors are drawn to a bubble “partly through envy of others’ successes and partly through a gambler’s excitement”).

⁶⁷ See *Credibility of Credit Ratings: Hearing*, *supra* note 22, at 249 (testimony of Warren E. Buffett, Chairman and CEO of Berkshire Hathaway) (comparing rising prices to a narcotic).

⁶⁸ See KRUGMAN, *supra* note 4, at 61 (“Financial bubbles are nothing new. From tulip mania to Internet mania, even the most sensible investors have found it hard to resist getting caught up in the momentum, to take a long view when everyone else is getting rich.”).

⁶⁹ See SHILLER, *supra* note 16, at 2 (“Irrational exuberance is the psychological basis of a speculative bubble.”).

⁷⁰ See ROBERT J. SHILLER, *THE SUBPRIME SOLUTION* 47 (2008) (“Psychological, epidemiological, and economic theory all point to an environment in which feedback of enthusiasm for speculative assets, or feedback of price increases into further price increases, can be expected to produce speculative bubbles from time to time.”).

⁷¹ See *Credibility of Credit Ratings: Hearing*, *supra* note 22, at 249 (testimony of Warren E. Buffett, Chairman and CEO of Berkshire Hathaway) (explaining that “rising prices became their own rationale”); Markus K. Brunnermeier & Stefan Nagel, *Hedge Funds and the Technology Bubble*, 59 J. FINANCE 13, 2015–16 (2004) (“If there is good news today, rational traders buy and push the price beyond its fundamental value because feedback traders are willing to take up the position at a higher price in the next period.”); J. Bradford DeLong et al., *Positive Feedback Investment Strategies and Destabilizing Rational Speculation*, 45 J. FINANCE 379, 380 (1990).

These profits attract even more investors to buy, sending prices even higher.⁷² The opportunity to profit is contagious,⁷³ chasing prices upward,⁷⁴ until finally “the scheme runs out of suckers” and prices crash to a rational level.⁷⁵

D. Some Participants Knowingly Buy into Asset Bubbles

Some market participants are aware of the existence of bubbles before they burst. For example, before the Internet bubble burst, the financial media repeatedly reported on the bubble’s existence.⁷⁶ In May of 1999, seventy-two percent of portfolio managers surveyed believed that the stock market was overvalued.⁷⁷ Similarly, before the MBS market collapsed,

(“Tomorrow, positive feedback traders buy in response to today’s price increase and so keep prices above fundamentals even as rational speculators are selling out and stabilizing prices.”).

⁷² See John Cassidy, *Dot.com: The Greatest Story Ever Sold*, in PANIC: THE STORY OF MODERN FINANCIAL INSANITY 208, 211 (Michael Lewis ed., 2009) (noting that a “self-reinforcing process” had “propelled stock prices into the stratosphere”).

⁷³ See SHILLER, *supra* note 16, at 2 (“I define a speculative bubble as a situation in which news of price increases spurs investor enthusiasm, which spreads by psychological contagion from person to person, in the process amplifying stories that might justify the price increases and bringing in a larger and larger class of investors, who, despite doubts about the real value of an investment, are drawn to it partly through envy of others’ successes and partly through a gambler’s excitement.”).

⁷⁴ Leonard, *supra* note 42 (quoting University of Oregon economist Mark Thoma) (“I think the idea is that when the market is in a bubble, marking to market (instead of to fundamentals) inflates the asset values, and that drives further demand, raises the values, and thus chases price upward.”).

⁷⁵ KRUGMAN, *supra* note 4, at 147 (citing SHILLER, *supra* note 16) (“[A]n asset bubble is a sort of natural Ponzi scheme in which people keep making money as long as there are more suckers to draw in. But eventually the scheme runs out of suckers, and the whole thing crashes.”).

⁷⁶ See Rebecca Buckman & Aaron Lucchetti, *Cooling It: Wall Street Firms Try to Keep Internet Mania from Ending Badly*, WALL ST. J., Feb. 24, 1999, reprinted in PANIC: THE STORY OF MODERN FINANCIAL INSANITY, *supra* note 72, at 186 (citing evidence of an impending collapse of the Internet bubble) (“The signs are all there: wild price swings, valuations that seem from another world, rapid-fire trading by people completely new to the game.”); Demers & Lev, *supra* note 59, at 332 (“Many market observers had predicted that the ‘Internet Bubble’ would eventually burst . . .”) (citing authority); Schultz & Zaman, *supra* note 17, at 356 (referring to an April 4, 2000 *Wall Street Journal* article, a July 14, 2000 *Wall Street Journal* article, and a 1999 book recognizing the existence of the internet bubble); Jack Willoughby, *Burning Up*, BARRON’S, Mar. 20, 2000, reprinted in PANIC: THE STORY OF MODERN FINANCIAL INSANITY, *supra* note 72, at 194 (“When will the Internet Bubble burst? For scores of ‘Net upstarts, that unpleasant popping sound is likely to be heard before the end of this year.”).

⁷⁷ See Lauren R. Rublin, *Party On! America’s Portfolio Managers Grow More Bullish on*

many market participants were aware of the overvaluation of the assets underlying these securities.⁷⁸ For example, in 2005, *The Economist* printed an article entitled “After the Fall,” which cautioned: “Perhaps the best evidence that America’s house prices have reached dangerous levels is the fact that house-buying mania has been plastered on the front of virtually every American newspaper and magazine over the past month.”⁷⁹ These participants, with knowledge of the bubble’s existence, may purposely buy into a bubble.⁸⁰ This counterintuitive behavior requires further explanation.

The obvious move if a rational investor suspects that an asset is overvalued is to sell it short, allowing the investor to profit by buying the asset at a lower price than the sale price.⁸¹ This downward pressure on prices should theoretically prevent bubbles from continuing to grow as market participants become generally aware of the existence of a bubble.⁸² In reality, however, short-selling is not an attractive option for many investors who believe that an asset is overvalued.⁸³ Short-selling involves increased transaction costs, including the fee to borrow the security.⁸⁴ More

Stocks and Interest Rates, BARRON’S, May 3, 1999, at 31.

⁷⁸ See *Credibility of Credit Ratings: Hearing*, *supra* note 22, at 208 (remarks of Chairman Phil Angelides) (“There were a number of experts, whether it was Robert Schiller [sic] or Mr. Rubini or Mr. Baker, Dean Baker, there were a number of people who saw this bubble.”); Complaint, *supra* note 55, at 1 (quoting an alleged July 23, 2007 email by Goldman Sachs employee Tourre) (“More and more leverage in the system, the whole building is about to collapse anytime now . . .”); Paul Krugman, Op-Ed., *The Joy of Sachs*, N.Y. TIMES, July 17, 2009, at A23 (“Goldman, famously, made a lot of money selling securities backed by subprime mortgages—then made a lot more money by selling mortgage-backed securities short, just before their value crashed. All of this was perfectly legal, but the net effect was that Goldman made profits by playing the rest of us for suckers.”).

⁷⁹ *After the Fall*, ECONOMIST, June 18, 2005, at 11.

⁸⁰ See *id.* (“And there is a troubling similarity between the house-price boom and the dotcom bubble: investors have been buying houses even though rents will not cover their interest payments, purely in the expectation of large capital gains—just as investors bought shares in profitless firms in the late 1990s, simply because prices were rising.”).

⁸¹ See POSNER, *supra* note 2, at 91 (“One might think a bubble would collapse before it got too big because investors who realized it was a bubble would sell short—in this case, sell interests in mortgage-backed securities short.”).

⁸² See *id.*

⁸³ See Lamont & Thaler, *supra* note 26, at 266 (“Many investors thought that Internet stock were overpriced during the mania, but only a small minority were willing to take a short position, and these short sellers were not enough to drive prices down to rational valuations.”).

⁸⁴ See *id.* at 231 (“Shorting costs can explain why a rational arbitrageur fails to short the overpriced security . . .”).

importantly, short-selling only works if an investor knows when the bubble will burst, not merely that it will burst at some point.⁸⁵ As succinctly explained by John Maynard Keynes: "The market can stay irrational longer than you can stay solvent."⁸⁶

A rational investor who knows that a bubble exists may instead decide to ride the bubble.⁸⁷ The rational investor understands the feedback loop and recognizes that short-term gains are possible during the bubble's expansion.⁸⁸ Indeed, there is evidence that market participants were purposefully riding the Internet and MBS bubbles.⁸⁹ Economists studying the Internet bubble have concluded that much of the high demand for these stocks came from short-term traders, including hedge funds, who

⁸⁵ See POSNER, *supra* note 2, at 91 ("But short selling in a bubble is very risky unless the bubble is expected to burst very soon."); SHILLER, *supra* note 16, at 178–79 ("If indeed one knew today that the market would do poorly over the next ten or twenty years, but did not know exactly when it would begin to do poorly and could not prove one's knowledge to a broad audience, then there would be no way to profit significantly from this knowledge. There is thus no substantial reason to think that the smart money must necessarily eliminate such stock mispricing."); Jay R. Ritter & Ivo Welch, *A Review of IPO Activity, Pricing, and Allocations*, 57 J. FINANCE 1795, 1822 (2002) ("The recent bubble has made it amply clear that even if there is systematic long-run underperformance, it is difficult or impossible to exploit it in a reliable manner. Many short sellers lost a great deal of money in Internet bubble IPOs, and had to close out their shorts before they would have paid off.").

⁸⁶ POSNER, *supra* note 2, at 92 (quoting Keynes).

⁸⁷ See *id.* at 105; SHILLER, *supra* note 16, at 71–72 ("Conceivably, a bubble might exist only because people *think* that there is a temporary bubble and want to ride with it for a while.").

⁸⁸ See POSNER, *supra* note 2, at 88 ("Especially when interest rates are low, riding a bubble can be rational even though you know it's a bubble. For you can't know when it will burst, and until it does it is expanding and that means that values are rising rapidly, so that if you climb off the bubble you will have forgone a large profit opportunity."); DeLong et al., *supra* note 71, at 383 (describing trend-chasing by exchange rate forecasting services) ("[F]orecasting services were issuing buy recommendations while maintaining that the dollar was overpriced relative to its fundamental value."); José A. Scheinkman & Wei Xiong, *Overconfidence and Speculative Bubbles*, 111 J. POL. ECON. 1183, 1208 (2003) ("With a short-sale constraint, an asset owner has an option to sell the asset to other agents with more optimistic beliefs. Agents value this option and consequently pay prices that exceed their own valuation of future dividends because they believe that in the future they will find a buyer willing to pay even more.").

⁸⁹ See Paul A. Ferrillo et al., *The "Less Than" Efficient Capital Markets Hypothesis: Requiring More Proof from Plaintiffs in Fraud-on-the-Market Cases*, 78 ST. JOHN'S L. REV. 81, 125–26 (2004) ("[T]hose investors who recognized the existence or likelihood of the bubble did not put in sufficient selling pressure to cause the bubble to burst. . . . [S]ince the sector had done so well in the recent past, it was likely to continue in the future and they wanted to be along for the ride.").

recognized the growing bubble and expected to profit from rising prices.⁹⁰ In an oft-cited example of this strategy during the MBS bubble, Citigroup's then-CEO said in July 2007 of his firm's investments: "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing."⁹¹

Investors making the rational decision to ride a market bubble must assess when the bubble will ultimately burst.⁹² If they leave the market too soon, they leave money on the table.⁹³ If they wait too long, they risk losing everything in the eventual market collapse.⁹⁴ The individually rational decision to ride a bubble until just before it collapses is collectively irrational, however.⁹⁵ The bubble-riders' speculative behavior adds additional positive information to the feedback loop, exacerbating the growth of the bubble.⁹⁶ The bigger the bubble, the more devastating the

⁹⁰ See Brunnermeier & Nagel, *supra* note 71, at 2016 (examining the holdings of hedge funds during the technology bubble) ("Both predictions—sophisticated investors riding the bubble and gains from doing so—are consistent with our findings."); Paul Schultz, *Downward-Sloping Demand Curves, the Supply of Shares, and the Collapse of Internet Stock Prices*, 63 J. FINANCE 351, 355 (2008) (citing John H. Cochrane, *Stocks as Money: Convenience Yield and the Tech-Stock Bubble*, in ASSET PRICE BUBBLES 175 (William C. Hunter et al. eds., 2003)) ("With a high demand for these stocks and few available shares, short-term traders who expected to turn over their positions and reap trading profits in only a few days willingly paid more than the intrinsic value of the stocks.").

⁹¹ POSNER, *supra* note 2, at 88–89.

⁹² See Abreu & Brunnermeier, *supra* note 28, at 174 ("[R]ational arbitrageurs understand that the market will eventually collapse but meanwhile would like to ride the bubble . . . Ideally, they would like to exit the market just prior to the crash. . . . [A]rbitrageurs realize that they will, for a variety of reasons, come up with different solutions to this optimal timing problem.").

⁹³ See *id.* at 174–75 ("In the equilibrium of our model, arbitrageurs stay in the market until the subjective probability that the bubble will burst in the next trading round is sufficiently high. Arbitrageurs who get out of the market just prior to the crash make the highest profit. Arbitrageurs who leave the market very early make some profit, but forgo much of the higher rate of appreciation of the bubble."); POSNER, *supra* note 2, at 105 ("[T]here is rational reluctance to forgo lucrative profit opportunities by bailing out before one senses that the plateau (followed by the inevitable crash) is about to be reached.").

⁹⁴ See Abreu & Brunnermeier, *supra* note 28, at 175 ("For example, when Stanley Druckenmiller, who managed George Soros' \$8.2 billion Quantum Fund, was asked why he didn't get out of internet stocks earlier even though he knew that technology stocks were overvalued, he replied that he thought the party wasn't going to end so quickly.").

⁹⁵ POSNER, *supra* note 2, at 106 ("Risky behavior of the sort I have been describing was individually rational during the bubble. But it was collectively irrational.").

⁹⁶ See DeLong et al., *supra* note 71, at 393–94 ("This paper has argued, to the contrary, that in the presence of positive feedback investors it might be rational for speculators to jump on the

ramifications from its eventual bursting. Yet, the speculators riding the bubble do not internalize the risk of eventual financial collapse.⁹⁷

Indeed, the members of the Financial Crisis Inquiry Commission have repeatedly noted that no market participant internalized the risk created by issuing mortgage-related securities at prices buoyed by the housing bubble. Commissioner Byron S. Georgiou articulated this problem: “Well, really, in the securitization process, we’ve discovered through the course of our hearings that really, almost everybody involved has nothing to lose.”⁹⁸ Chairman Phil Angelides queried: “[W]here is the responsibility along the chain for ensuring the quality of the products that are moved into the system?”⁹⁹ Vice Chairman Bill Thomas unfavorably contrasted the liability of securities issuers to the liability of consumer product manufacturers: “[I]f you sell a baby blanket, you’re supposed to make sure that it doesn’t burn easily.”¹⁰⁰

E. Securities Are Sometimes Knowingly Issued at a Price Above Their Fundamental Value in a Bubble

Issuers and underwriters often set the offering price of securities above their intrinsic value when selling into a bubble market.¹⁰¹ Sometimes, they do so with knowledge that they are profiting from a growing bubble.

bandwagon and not to buck the trend. Rational speculators who expect some future buying by noise traders buy today in the hope of selling at a higher price tomorrow. Moreover, purchases by rational speculators can make positive feedback traders even more excited and so move prices even further away from fundamental values than they would reach in the absence of rational speculators.”).

⁹⁷ See KRUGMAN, *supra* note 4, at 62–63 (arguing that financial bubbles are exacerbated, and perhaps caused, by moral hazard and defining moral hazard as “any situation in which one person makes the decision about how much risk to take, while someone else bears the cost if things go badly”); POSNER, *supra* note 2, at 111–12 (“In sum, rational maximization by businessmen and consumers, all pursuing their self-interest more or less intelligently within a framework of property and contract rights, can set the stage for an economic catastrophe.”).

⁹⁸ *Credibility of Credit Ratings: Hearing*, *supra* note 22, at 271–72 (remarks of Byron S. Georgiou, Commissioner) (identifying mortgage brokers, bankers, lawyers, accountants, and credit rating agencies as market participants with “nothing to lose”).

⁹⁹ *Subprime Lending and Securitization: Hearing*, *supra* note 53, at 247 (remarks of Phil Angelides, Chairman).

¹⁰⁰ *Id.* at 250 (remarks of Hon. Bill Thomas, Vice Chairman).

¹⁰¹ See Derrien, *supra* note 13, at 514 (“[I]f noise trader sentiment is bullish at a given time, we expect both the issuer and the companies in the same industry to be overpriced with respect to their intrinsic values.”).

Economist Robert Shiller anecdotally describes this phenomenon during the Internet bubble:

More common than the examples of criminal behavior, however, are examples of people who stayed entirely within the law and exploited a boom, building businesses that they did not themselves believe in. These are the cases of disingenuity rather than frauds.

Some of these people have already taken their money and gone home. Since 2000, many top managers of tech companies that were built promoting a fundamentally flawed business concept have made their initial public offerings, and have retired to their estates, and hardly care that the price of their stocks has dropped so far.¹⁰²

Some scholars contend that investment banks purposefully stoked the Internet bubble in order to profit from it.¹⁰³

Many investors, lawmakers, and commentators make the same charge against investment banks who were selling MBS.¹⁰⁴ The general view is that investment banks were selling MBS and related securities that they did not believe in, at prices far above their rational level.¹⁰⁵

1. Securities Are Sometimes Issued at an Irrationally High Price in a Bubble

Most registered offerings of securities, including initial public stock offerings and MBS offerings,¹⁰⁶ are accomplished via an underwriter.¹⁰⁷

¹⁰² SHILLER, *supra* note 16, at 77.

¹⁰³ See Ritter & Welch, *supra* note 85, at 1807–08 (citing evidence that “investment banking firms were making other efforts to encourage overvaluations during the Internet bubble, such as subsequently issuing ‘buy’ recommendations when market prices had risen far above the offer price”).

¹⁰⁴ See, e.g., Matt Taibbi, *The Great American Bubble Machine*, ROLLING STONE, July 9–23, 2009, at 52, 59 (“Then [Goldman Sachs] sold investors on the idea that, because a bunch of those mortgages would turn out to be OK, there was no reason to worry so much about the [other] ones: The [investment], as a whole, was sound. Thus, junk-rated mortgages were turned into AAA-rated investments.”).

¹⁰⁵ See, e.g., Daniel Carty, *Goldman Sachs Under Microscope: Key Moments from Hearing*, ECONWATCH (Apr. 27, 2010), http://www.cbsnews.com/8301-503983_162-20003568-503983.html.

¹⁰⁶ See SEC ET AL., STAFF REPORT: ENHANCING DISCLOSURE IN THE MORTGAGE-BACKED

The underwriter, in consultation with the issuer, sets the initial prices of securities.¹⁰⁸ The underwriter is not required to set the price at a level rationally related to the securities' underlying value.¹⁰⁹

Rather, the underwriter sets a price related to what the market will bear. Typically, an IPO price is set in a multi-step bookbuilding process, designed to match price with market demand.¹¹⁰ First, the underwriter makes a price prediction during the beauty contest stage, when the underwriter is attempting to convince the issuer to choose it as managing underwriter.¹¹¹ Then, the underwriter performs a valuation of the

SECURITIES MARKETS 19 (2003), available at <http://www.sec.gov/news/studies/mortgagebacked.htm> ("Unlike GSE and Ginnie Mae MBS, offerings of private-label MBS are subject to the registration requirements of the federal securities laws. As such the offer and sale of these securities must be done pursuant to a registration statement filed with the Commission or pursuant to an exemption. . . . Market participants have indicated that the vast majority of private-label MBS, over 98% in 2001, are sold in registered transactions with the remainder being sold in Rule 144A transactions.").

¹⁰⁷See *id.* at 18 ("Private-label MBS typically are offered initially through underwriters . . ."); Arthur B. Laby, *Reforming the Regulation of Broker-Dealers and Investment Advisors*, 65 BUS. LAW. 395, 428 (2010) ("When a corporation raises money through the sale of securities to the public, it typically hires a broker-dealer to distribute the securities in a firm commitment or best efforts underwriting.").

¹⁰⁸See Municipal Securities Disclosure, 53 Fed. Reg. 37,778, 37,787 (proposed Sept. 28, 1988) ("The underwriter stands between the issuer and the public purchasers, assisting the issuer in pricing and, at times, in structuring the financing and preparing disclosure documents."); Samuel N. Allen, *A Lawyer's Guide to the Operation of Underwriting Syndicates*, 26 NEW ENG. L. REV. 319, 345 (1991) ("The pricing of an offering is completed in a meeting between the issuer and the manager."); Steven Drucker & Christopher Mayer, *Inside Information and Market Making in Secondary Mortgage Markets 1* (Jan. 6, 2008), available at <http://www.hbs.edu/units/finance/pdf/underwriters-MBS-Drucker-Mayer-01-2008.pdf> ("Underwriters serve as the middle-man in debt securitization markets, collecting and distributing information to potential investors, setting initial prices of securities, and providing post-issuance price support.").

¹⁰⁹See GEDDES, *supra* note 47, at 94 ("A company valuation is the starting point in setting the price of an IPO. Many dot.coms that were worthless based on a DCF calculation at the time of their flotations achieved billion dollar market capitalizations. Similarly, the market will sometimes undervalue businesses.").

¹¹⁰See *id.* at 70 ("In the USA and Canada, bookbuilding is the standard way of conducting an IPO: the vast majority of IPOs and secondary offerings are conducted and priced in this manner.").

¹¹¹See *id.* at 76 ("[T]he banks involved in the flotation must provide an indicative valuation (price range) at the beginning of the offering process. In fact the first valuation analysis is usually done when investment banks are pitching for the lead manager mandate. To help win the business they will present the company or selling shareholder with a preliminary valuation. The valuation will be refined as the bankers learn more about the company during due diligence."); Allen, *supra*

security,¹¹² incorporating both a fundamental analysis and a market-based analysis, and sets an initial price range for the stock.¹¹³ This price range is included in the preliminary prospectus.¹¹⁴ Next, the underwriter shops the security around in a “roadshow,” seeking expressions of interest from potential investors at various prices.¹¹⁵ At the end of the bookbuilding process, and on the eve of the offering, the underwriter sets the final price based on the bids gathered.¹¹⁶ This final price is a product of what the market will bear and need not relate to the intrinsic value of the security.¹¹⁷

note 108, at 330 (“The price at which an investment banking firm claims it can sell a company’s securities can be a major consideration in selecting a manager from a group of investment banking firms.”).

¹¹²See Allen, *supra* note 108, at 331 (“The analyst will determine the company’s relative strength, position within its industry, cash flow, market share and potential to increase that share, growth potential, asset value and similar matters.”).

¹¹³See GEDDES, *supra* note 47, at 77 (“Senior bankers use their experience and judgment when determining the most appropriate valuation method to use. But they will always use more than one technique in valuing a company’s shares.”).

¹¹⁴See *id.* at 76 (“Before bookbuilding commences, the managers set a price range to give investors an idea of what value they consider reasonable.”); Allen, *supra* note 108, at 346 (“In an IPO, the preliminary prospectus sets forth an expected price range within which the securities are expected to be offered. The price is based upon the value that the manager has placed on the company issuing the securities.”).

¹¹⁵See JOHN C. COFFEE, JR. ET AL., SECURITIES REGULATION 119 (10th ed. 2007) (“During the waiting period, the underwriters may undertake a series of ‘roadshows’ by which they and some members of the issuer’s senior management travel around the country to meet with securities analysts, institutional investors, and possibly a few very wealthy individual investors, in order to market the offering.”); accord GEDDES, *supra* note 47, at 70 (“Starting with a likely offering price range, syndicate members solicit expressions of interest with respect to both size of order and number of shares the institutional investor is interested in. Thus, a book is built which gives the company, selling shareholders and investment bank a clear picture of demand for shares at different price levels.”); Moonchul Kim & Jay R. Ritter, *Valuing IPOs*, 53 J. FIN. ECON. 409, 425 (1999) (“Underwriters usually contact potential buyers, get information about the market demand, and try to augment the demand through the road show.”).

¹¹⁶See COFFEE ET AL., *supra* note 115, at 119 (“Conversely, if the offering is oversubscribed, the underwriters will know that it is likely to be ‘hot.’”); GEDDES, *supra* note 47, at 71 (“Once the bookbuilding process is concluded, the lead bank aggregates all the bids into a demand curve and chooses the issue price according to its discretion.”).

¹¹⁷See Allen, *supra* note 108, at 346 (“The actual public offering price securities being sold in an IPO may be materially different from the range of prices set forth in the preliminary prospectus. If there is great enthusiasm for the issuer’s securities during the marketing stage of the offering, the public offering price will increase. If the market does not receive the offering favorably, the public offering price will be reduced or the number of shares being offered will be reduced to create a greater demand. In either case, a change in the offering price or the number of

Indeed, if an issue is perceived by potential investors as “hot,” the underwriter may set the offering price above the initial file range, despite the fact that the file range was influenced at least partially by fundamentals.¹¹⁸ Similarly, an underwriter usually sets the MBS offering price in negotiated transactions with investors at prices related to prevailing market prices, regardless of whether those market prices bear any relationship with fundamental value.¹¹⁹

Issuers of securities in an IPO¹²⁰ or in a registered offering of MBS¹²¹ are required to “describe the various factors considered in determining [the]

shares being offered would indicate that the market placed a higher or lower value on the company than did the manager.”).

¹¹⁸ See COFFEE ET AL., *supra* note 115, at 119; accord GEDDES, *supra* note 47, at 73 (“The lead manager has significant discretion in setting the price and, in most markets can set the price outside the initial range if there is sufficient/insufficient demand to merit doing so.”); Kim & Ritter, *supra* note 115, at 425 (“It is common for the preliminary offer price range to be adjusted before a final offer price is set.”); *Underwriters Raise Offer Price for Netscape Communication*, N.Y. TIMES, Aug. 9, 1995, reprinted in PANIC: THE STORY OF MODERN FINANCIAL INSANITY, *supra* note 72, at 163 (reporting that, “[f]aced with surprisingly strong demand for an initial public offering,” Netscape Communications Corporation had raised the size and price of its initial stock offering).

¹¹⁹ See *Subprime Lending and Securitization: Hearing*, *supra* note 53, at 130 (testimony of Susan Mills, Managing Director of Mortgage Finance, Citi Markets & Banking, Global Securitized Markets) (“We would market the RMBS bonds to investors, solicit feedback from those investors regarding the transaction, and finalize the structure and pricing.”); GSR Mortg. Loan Trust 2007-3F, Prospectus Supplement to Prospectus (Form 424B5) (Apr. 25, 2007) (“The underwriter, Goldman, Sachs & Co., will offer the offered certificates from time to time in negotiated transactions or otherwise at varying prices to be determined at the time of sale. The proceeds to the depositor, GS Mortgage Securities Corp., from the sale of the offered certificates will be approximately 99.38% of the class principal balance of the offered certificates plus accrued interest, before deducting expenses.”); Credit Suisse First Bos. Mortg. Sec. Corp., Prospectus Supplement to Prospectus (Form 424B5) (Oct. 23, 2001) (“The underwriters propose to offer the offered certificates from time to time for sale in negotiated transactions or otherwise, at market prices prevailing at the time of sale, at prices related to the prevailing market prices or at negotiated prices.”).

¹²⁰ Item 5 of Form S-1 (the form used to register IPOs) requires issuers to “[f]urnish the information required by Item 505 of Regulation S-K.” SEC, FORM S-1, at 4 (2011), available at <http://www.sec.gov/about/forms/forms-1.pdf>; see also 17 C.F.R. § 239.11 (2010). The requirements contained in Item 505 of Regulation S-K are triggered “[w]here common equity is being registered for which there is no established public trading market.” See 17 C.F.R. § 229.505.

¹²¹ Asset-Backed Securities, 70 Fed. Reg. 1506, 1522 (proposed Jan. 7, 2005) (to be codified at 17 C.F.R. pt. 239) (explaining that Item 5 of Form S-1, which requires disclosure about “Determination of Offering Price,” must be completed for offerings of asset-backed securities).

offering price” in the registration statement.¹²² As noted by William W. Barker, then Senior Counsel to the Division of Corporation Finance at the SEC, these disclosures are essentially meaningless: “Unfortunately, the item invites boilerplate responses. For example, statements that the ‘initial public offering price has been arbitrarily determined’ or ‘the offering price has been established by negotiations between the underwriter and representative’ do not by themselves provide meaningful disclosure.”¹²³

As a consequence of this market-based price-setting process, securities issued into a bubble market are sometimes overpriced as compared to fundamental value. One piece of evidence of this inflationary effect on offering prices is the high percentage of offerings in which the final offering price exceeds the original file price range during a market bubble.¹²⁴ In 1999 and 2000, the height of the Internet bubble, IPO prices exceeded the original file price range in 47.7% and 38.7% of offerings, respectively.¹²⁵ By contrast, in the years 1991 through 1998, the IPO price exceeded the file price range in only 23.6% of offerings, on average; and in the years 2001 through 2008, the IPO price exceeded the file price range in only 20.5% of offerings, on average.¹²⁶

A second piece of evidence is the poor long-term performance of stocks issued during a market bubble. Economists have documented that IPO stocks issued during high-demand and bubble markets perform poorly in the long term because they are issued at prices exceeding their fundamental

¹²² 17 C.F.R. § 229.505.

¹²³ William W. Barker, *SEC Registration of Public Offerings Under the Securities Act of 1933*, 52 BUS. LAW. 65, 106 (1996); accord GEDDES, *supra* note 47, at 94 (quoting Fairchild Semiconductor’s IPO preliminary prospectus) (“Prior to this offering, there has been no public market for our Class A Common Stock. The initial public offering price for the Class A Common Stock will be determined by negotiation between us [Fairchild] and Credit Suisse First Boston Corporation [the lead manager], and does not reflect the market price for Class A Common Stock following the offering.”); Stout, *supra* note 28, at 656–57 & n.226 (“[I]t is the custom to state in an IPO prospectus that offering price has been determined arbitrarily Another common phrase is that price has been determined by negotiations between the issuer and underwriter.” (internal quotation marks omitted)).

¹²⁴ See GEDDES, *supra* note 47, at 73 (“In fact, under 50 per cent of US offerings between 1990 and 2001 were priced within the initial price range, as set out in the preliminary prospectus Note the leap in proportion of offerings being priced above the high end of the initial price range in 1999 and 2000.”).

¹²⁵ See JAY R. RITTER, SOME FACTOIDS ABOUT THE 2008 IPO MARKET 8 (2009), available at <http://bear.warrington.ufl.edu/ritter/IPOs2008Factoids.pdf>.

¹²⁶ See *id.*

value.¹²⁷ Similarly, MBS prices have plummeted from their offering prices in the height of the bubble, sometimes becoming virtually worthless.¹²⁸ Economists Alexander Ljungqvist, Vikram Nanda, and Rajdeep Singh explain the relationship between an irrationally high offering price and poor long-term performance: “Underperformance relative to the offer price is a stronger (and novel) prediction. It follows because the offer price will exceed fundamental value by an amount equal to the issuer’s share in the surplus extracted from the sentiment investors.”¹²⁹

The conclusion that securities are sometimes overpriced at the time of issue when selling into a bubble market seems to contradict the so-called underpricing phenomenon, which has been the subject of much scholarly attention. On closer examination, however, this apparent contradiction disappears because the two conclusions use different measures of a price’s correctness. As explained below, the conclusion that securities are overpriced at issue is premised on the gap between the offering price and fundamental value, while the conclusion that securities are underpriced at issue is premised on the gap between the offering price and the closing market price on the first day of trading. Indeed, economists Michael Adams, Barry Thornton, and George Hall humorously summarize both conclusions: “Does IPO stand for Instant Profit Opportunity or It’s

¹²⁷ See Tim Loughran & Jay R. Ritter, *Uniformly Least Powerful Tests of Market Efficiency*, 55 J. FIN. ECON. 361, 382, 388 (2000) [hereinafter Loughran & Ritter, *Uniformly Least Powerful Tests of Market Efficiency*] (finding that, consistent with the “supply response hypothesis” that “IPOs appear to underperform only in high-volume periods”); Tim Loughran & Jay R. Ritter, *The New Issues Puzzle*, 50 J. FINANCE 23, 46 (1995) [hereinafter Loughran & Ritter, *The New Issues Puzzle*] (citing studies “[c]onsistent with the hypothesis that IPOs have poor subsequent returns due to misvaluations at the time of going public”); Ritter & Welch, *supra* note 85, at 1819 (“IPOs from 1999 and 2000 performed poorly by any measure during the well-known collapse of the Internet bubble. For IPOs from calendar year 2000, the average return from the closing price on its first day of trading until September 2001 was –64.7 percent.”).

¹²⁸ See, e.g., Complaint, *supra* note 55, at 17–18 (alleging that an investor bought \$150 million worth of synthetic CDO notes at face value and that, within months of closing, the notes were “nearly worthless”).

¹²⁹ Alexander Ljungqvist et al., *Hot Markets, Investor Sentiment, and IPO Pricing*, 79 J. BUS. 1667, 1670 (2006) (modeling an IPO company’s optimal response to so-called “sentiment” investors); see also Michael Adams et al., *Asymmetric Price Adjustment: Are IPO Prices Too “Sticky”?*, 7 J. BUS. & ECON. RES. 55, 58 (2009) (“Specifically, a high-demand IPO, which is due to investors’ over optimism, is more likely to create a speculative bubble. The speculative bubble may temporarily push the stock price above its intrinsic value, followed by long-run price correction. As a result, a relatively high positive initial return will be followed by a negative long-run return.”).

Probably Over-priced? The conundrum is that both answers are generally correct.¹³⁰

Underpricing is defined as the difference between the offering price and the closing price on the first day of trading.¹³¹ It is well-documented that the closing price is usually higher than the offering price, often substantially so.¹³² For example, in 2004, economists Amiyatosh K. Purnanandam and Bhaskaran Swaminathan documented that “first-day returns of initial public offerings (IPOs) have averaged ten to fifteen percent in recent decades, giving rise to a well-documented phenomenon known as IPO underpricing, where the underpricing is calculated with respect to the offer price chosen by the issuers and their investment bankers.”¹³³ This phenomenon has led to myriad theories about why issuers are leaving money on the table by

¹³⁰Michael Adams et al., *IPO Pricing Phenomena: Empirical Evidence of Behavioral Biases*, 6 J. BUS. & ECON. RES. 67, 67 (2008).

¹³¹See *id.* (“The initial under pricing of the IPS is the difference between the price obtained by the shares at the close of the first trading day and the price of the offer, adjusting for the market return in the same period.”); COFFEE ET AL., *supra* note 115, at 76 (“[T]here is considerable evidence that underwriters ‘underprice’ a new issue so that the investors who purchase in the initial offering will receive an immediate return over the first day or two of trading.”); Ritter & Welch, *supra* note 85, at 1802 (“Academics use the terms first-day returns and underpricing interchangeably.”); Chitru S. Fernando et al., *Is the Offer Price in IPOs Informative? Underpricing, Ownership Structure, and Performance* 10 (Wharton Fin. Insts. Ctr., Working Paper No. 01-33, 2002) (“[W]e calculate underpricing as the raw return from the offer price to the closing price on the first trading day.”).

¹³²See Adams et al., *supra* note 130, at 67 (“A well known and documented phenomenon is the first day return typically generated by IPOs. This is also known as the initial under pricing practice of investment bankers.”); Kim, *supra* note 115, at 422 (recognizing the “short-run underpricing phenomenon”); Andreas Oehler et al., *Is the Investor Sentiment Approach the Solution to the IPO Underpricing Phenomenon?*, 13 J. FIN. TRANSFORMATION 127, 127 (“Therefore, it is rather surprising that most of the firms show a significant increase in share price between the offering and the first trading day. These astonishing and time varying initial returns have been labeled the underpricing phenomenon and have been confirmed for all major stock markets around the world.” (citation omitted) (citing Tim Loughran et al., *Initial Public Offerings: International Insights*, 2 PAC-BASIN FIN. J. 165–199 (1994))); Laurence Zuckerman, *With Internet Cachet, Not Profit, a New Stock Is Wall St.’s Darling*, N.Y. TIMES, Aug. 10, 1995, at A1, reprinted in PANIC: THE STORY OF MODERN FINANCIAL INSANITY, *supra* note 72, at 165, 167 (“Most initial public offerings are priced so that they will end the first day of trading with a small profit for investors.”).

¹³³See Amiyatosh K. Purnanandam & Bhaskaran Swaminathan, *Are IPOs Really Underpriced?*, 17 REV. FIN. STUD. 811, 811 (2004).

underpricing their issues, including that issuers are attempting to compensate investors for the risk of buying a new issue.¹³⁴

The relationship between underpricing and long-term value supports the conclusion that the offering price is sometimes higher than merited by the fundamentals when selling into a bubble market. Indeed, studying this relationship, several economists have concluded that IPOs, rather than being underpriced, are overpriced as compared to intrinsic value.¹³⁵ One would expect that underpricing would be most pronounced when an issuer is selling into a bubble market because the growing bubble would drive the high first-day returns. As a corollary, one would also anticipate that the most underpriced securities would perform the worst in the long term because the popping bubble would send the price plummeting below both the first-day closing price and the offering price. Indeed, consistent with these hypotheses, the data shows that the most underpriced issues perform the worst in the long term.¹³⁶

¹³⁴See COFFEE ET AL., *supra* note 115, at 76 (“This run-up in price is intended to compensate the IPO investors for the riskiness of new offerings . . .”).

¹³⁵Purnanandam & Swaminathan, *supra* note 133, at 812 (“Our analysis reveals the surprising result that IPOs are systematically overvalued at the offer price relative to peer firms. We find that in a sample of more than 2,000 relatively large capitalization IPOs from 1980 to 1997, the median IPO is overvalued by about 14% to 50%, depending on the matching criteria, relative to its industry peers.”); *id.* at 845 (finding “initial IPO overvaluation at the offer price and even more overvaluation in the after market, followed ultimately by long-run reversals”); Giordano Cogliati, Stefano Paleari & Silvio Vismara, *IPO Pricing: Growth Rates Implied in Offer Prices* 18 (April 2008) (unpublished manuscript) (on file with Baylor Law Review) (comparing 184 European IPO prices, which were priced using the discounted cash flow model, to the firms’ actual performance over the succeeding five years) (“We find that the median IPO firm is overvalued at the offering by 74%.”).

¹³⁶See Adams et al., *supra* note 130, at 69 (“Empirical studies have demonstrated that the first day’s abnormal return is usually short-lived and that an IPO is not always underpriced in the long term. In fact, IPOs may be generally overpriced based upon the longer term performance of risk equivalent securities.”) (citing Loughran & Ritter, *The New Issues Puzzle*, *supra* note 127, at 23); Purnanandam & Swaminathan, *supra* note 133, at 827 (differentiating between underpriced and overpriced IPOs via a comparative analysis) (“Overvalued IPOs provide higher returns than undervalued IPOs on the first day of trading.”); Tim Loughran & Jay Ritter, *Why Has IPO Underpricing Changed Over Time?*, 33 FIN. MGMT. 5, 30 (2004) (“For example, of the 19 IPOs with a first-day return of more than 300% during the internet bubble, the average buy-and-hold return from the first closing price until the end of December 2002 is -95.0%. Measured from the offer price, the average return through December 2002 (or the delisting date, if earlier) is -73.7% for these 19 IPOs, compared to -43.5% for the other bubble period IPOs.”).

2. Issuers and Underwriters Sometimes Knowingly Set the Offering Price Above Fundamental Value

Evidence further suggests that some issuers and underwriters knowingly set the offering price at a level higher than supported by the fundamentals—intentionally profiting from a bubble market.

First, there is anecdotal evidence to support knowing overpricing in specific scenarios. For instance, as alleged in the infamous *SEC v. Goldman Sachs & Co.* complaint related to the sale of synthetic CDOs, a hedge fund employee stated in January 2007:

It is true that the market is not pricing the subprime RMBS wipeout scenario. In my opinion this situation is due to the fact that rating agencies, CDO managers and underwriters have all the incentives to keep the game going, while “real money” investors have neither the analytical tools nor the institutional framework to take action before the losses that one could anticipate based [on] the “news” available everywhere are actually realized.¹³⁷

More compelling is the statistical evidence suggesting that issuers time issues to take advantage of market overvaluation. Numerous economists have concluded, after studying the long-term poor performance of IPOs¹³⁸ and the cyclical volume of IPOs,¹³⁹ that issuers are seizing a window of opportunity to issue stock when the market is overvaluing it.¹⁴⁰ Economists

¹³⁷ Complaint, *supra* note 55, at 17–18.

¹³⁸ See Loughran & Ritter, *The New Issues Puzzle*, *supra* note 127, at 32–35 (demonstrating that, measured five years after issuance, companies issuing stock in an IPO during the period 1970 to 1990 significantly underperformed relative to nonissuing matching companies and relative to the S&P 500).

¹³⁹ See *id.* at 47 (citing “[e]vidence that cycles in IPO volume are due to issuers taking advantage of windows of opportunity”).

¹⁴⁰ See Malcolm Baker & Jeffrey Wurgler, *The Equity Share in New Issues and Aggregate Stock Returns*, 55 J. FINANCE 2219, 2248 (2000) (“On the basis of this collection of evidence, we conclude that market timing drives our results. Managers appear to time their issues to exploit not only the idiosyncratic component of their firm’s returns but also the market component.”); Ljungqvist et al., *supra* note 129, at 1694 (“[A]s the market heats up, some firms may go public for opportunistic reasons, purely to extract surplus from sentiment investors.”); Loughran & Ritter, *The New Issues Puzzle*, *supra* note 127, at 46 (interpreting their evidence as “consistent with a market where firms take advantage of transitory windows of opportunity by issuing equity when, on average, they are substantially overvalued”); Ritter & Welch, *supra* note 85, at 1799 (“The academic literature has tended to view increases in the valuation of comparable firms as

Malcolm Baker and Jeffrey Wurgler explain the logical relationship between market overvaluation and issue timing as follows:

The story is intuitive. When investor sentiment causes, for example, overvalued equity prices, managers prefer to issue equity. Correlated investor sentiment implies that other firms will be overvalued at the same time and will therefore tend to make similar financing decisions. The final element is that arbitrage forces slowly—but eventually with some success—push the market back down to its efficient value.¹⁴¹

This market timing evidence reinforces the anecdotal evidence that at least some issuers and underwriters, despite the resultant damage to their reputations,¹⁴² are knowingly setting the offering price at a level buoyed by a market bubble.

III. HOLDING ISSUERS AND UNDERWRITERS LIABLE FOR PRICE FRAUD WOULD HELP PREVENT THE GROWTH OF ASSET BUBBLES

Under the theory of price fraud, an issuer or underwriter who knowingly overpriced a security, as compared to its fundamental value, would potentially be subject to securities fraud liability. The recognition of price fraud as a viable securities fraud theory would help prevent the growth of asset bubbles by forcing these market participants to internalize the risk of contributing to growing bubbles, by inserting negative feedback into growing bubbles, and by refocusing the investment community on fundamentals.¹⁴³ Although the price-fraud theory could have some negative effects, these effects would be outweighed by the benefits.

reflecting improved growth opportunities. But more favorable investor sentiment could also play a role in the increased valuations. When investors are overoptimistic, firms respond by issuing equity in a 'window of opportunity.'").

¹⁴¹ Baker & Wurgler, *supra* note 140, at 2248.

¹⁴² See Schultz & Zaman, *supra* note 17, at 369 ("Underwriters, like venture capitalists, return to the initial public offering market repeatedly. Their desire to protect their reputation provides an incentive to avoid selling overpriced IPOs.").

¹⁴³ See POSNER, *supra* note 2, at 112 ("[T]he economic emergency is a failure of the market to internalize the costs of an economy-wide catastrophe.").

A. The Price-Fraud Theory Would Force Issuers and Underwriters to Internalize the Risk of Their Behavior

The prospect of price-fraud liability would force issuers and underwriters to internalize the risk that, by issuing overpriced securities, they are contributing to the growth of an asset bubble. As discussed above in Part II.D, it is often rational for an individual actor to ride a bubble knowingly in order to profit from it.¹⁴⁴ Collectively, however, this behavior is irrational because it feeds the growth of the bubble, threatening the entire financial system.¹⁴⁵

The solution is to somehow force the individual actors to internalize the societal effects of their behavior.¹⁴⁶ As humorously explained by Byron S. Georgiou, Commissioner of the Financial Crisis Inquiry Commission, market participants should be forced to “eat their own cooking.”¹⁴⁷ Proposals to accomplish this have included paying market participants in the subject securities¹⁴⁸ and aligning executives’ incentives with overall economic welfare.¹⁴⁹ Similarly, the Dodd-Frank Wall Street Reform and Consumer Protection Act requires securitizers or originators of asset-backed securities to retain some of the credit risk.¹⁵⁰

The potential for price-fraud liability would accomplish the goal of forcing issuers and underwriters to internalize the risk of feeding a growing asset bubble. Rather than lacking an incentive to price to fundamentals, issuers and underwriters would weigh the potential fraud liability against the benefits of riding a market bubble. As a consequence, in a growing bubble, issuers and underwriters would have the incentive to set offering prices below what the market could bear, signaling the existence of a market bubble to the public.¹⁵¹ Rather than feeding a growing bubble with

¹⁴⁴ See *id.* at 105; *supra* Part II.D.

¹⁴⁵ See POSNER, *supra* note 2, at 106, 111–12.

¹⁴⁶ See *id.* at 112 (“[T]he economic emergency is a failure of the market to internalize the costs of an economy-wide catastrophe.”).

¹⁴⁷ See *Subprime Lending and Securitization: Hearing*, *supra* note 53, at 189–90 (remarks of Byron S. Georgiou, Commissioner).

¹⁴⁸ See *id.* at 190; *Credibility of Credit Ratings: Hearing*, *supra* note 22, at 272 (remarks of Byron S. Georgiou, Commissioner).

¹⁴⁹ See POSNER, *supra* note 2, at 302.

¹⁵⁰ See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 941, § 15G, 124 Stat. 1376, 1891–96 (2010) (to be codified at 15 U.S.C. § 78o-11).

¹⁵¹ See SHILLER, *supra* note 16, at 225 (recommending as part of his “call to action” to prevent speculative bubbles, that opinion leaders, such as the Fed Chair, “try to call the attention

positive feedback, this insertion of negative information into the feedback loop would have a stabilizing effect, quelling the bubble's growth.¹⁵²

B. The Price-Fraud Theory Would Promote Attention to Fundamental Value

Moreover, issuers' and underwriters' attention to fundamental value when setting offering prices, coupled with the public's recognition of forming bubbles, would refocus the investment community on fundamental value. This would address the dangerous disconnect from fundamentals bemoaned by Robert Shiller:

We have seen that the market is not well anchored by fundamentals. People do not even know to any degree of accuracy what the "right" level of the market is: not many of them spend much time thinking about what its level should be or whether it is over- or underpriced today.¹⁵³

C. The Positive Effects of the Price-Fraud Theory Arguably Outweigh Any Negative Effects

Although recognition of the price-fraud theory of liability would help prevent the growth of asset bubbles, the proposal could have some negative effects. First, by pricing to fundamentals during an asset bubble, issuers and underwriters might exacerbate the perceived underpricing phenomenon.¹⁵⁴ Issuers and underwriters would leave even more money on the table to be scooped up as profits in the secondary market, arguably to a less beneficial use.¹⁵⁵ This concern does not outweigh the benefits of adopting the proposal, however. The potential impacts of asset bubbles are so devastating that a means of preventing their growth is far more beneficial to the economy than leaving less money on the table during an IPO.¹⁵⁶

of the public to over- and underpricing errors when they occur").

¹⁵² See Leonard, *supra* note 42 (quoting University of Oregon economist Mark Thoma) ("If the price were marked to fundamentals instead, then the value of the asset wouldn't follow the market up, and that would have a stabilizing effect relative to the mark-to-market approach.").

¹⁵³ SHILLER, *supra* note 16, at 147; see also *Credibility of Credit Ratings: Hearing*, *supra* note 22, at 249 (remarks of Hon. Bill Thomas, Vice Chairman) (urging Warren Buffett to "speak out even more than you have about fundamentals").

¹⁵⁴ See *supra* Part II.E.

¹⁵⁵ See *supra* Part II.E.

¹⁵⁶ See *supra* Part II.B.

Moreover, the signal sent by the below-market offering price would help prevent the price from skyrocketing in first-day trading, counterbalancing the effect of the lower offering price on first-day returns.¹⁵⁷

Second, by forcing the issuer and underwriter to internalize the effects of knowing overpricing, the price-fraud theory of liability could increase the cost of raising capital. Rather than merely relying on market forces when setting prices, the issuer and underwriter would have to expend resources to assess the fundamental value of the securities. This concern is allayed because, first, society is better off if someone performs a fundamental analysis of securities when they are issued, and second, the issuer and underwriter can accomplish this analysis more efficiently than any other market participant.¹⁵⁸ The issuer and underwriter have access to the fundamentals and, often, have already performed an intrinsic valuation of the securities during the book-building process.¹⁵⁹

Third, by affording a cause of action to investors who purchase fraudulently overpriced securities, the price-fraud theory risks being viewed as an insurance policy for investors, who themselves will lose the incentive to research their investment decisions. This could deprive the market of the benefits of informed participants and run contrary to the purpose of the securities acts.¹⁶⁰ This concern is allayed by the fact that recovery would only be available in instances where an investor could prove that the overpricing was fraudulent—i.e., with scienter. Therefore, a rational investor would nonetheless have the incentive to research a security before purchasing it. Moreover, most investors are not currently performing fundamental analysis of securities before purchasing them,¹⁶¹ rendering the potential loss of an incentive to do this analysis less impactful.

Finally, to the extent that the price-fraud theory were successful in preventing market bubbles by anchoring prices in fundamentals, the

¹⁵⁷ See *supra* Part II.E.

¹⁵⁸ See *supra* Part II.E.

¹⁵⁹ See *supra* Part II.E.1.

¹⁶⁰ *Dura Pharm., Inc. v. Broudo*, 544 U.S. 336, 345 (2005) (“But the statutes make these latter [private securities] actions available, not to provide investors with broad insurance against market losses, but to protect them against those economic losses that misrepresentations actually cause.”).

¹⁶¹ See Robert J. Shiller, *Speculative Prices and Popular Models*, 4 J. ECON. PERSP. 55, 63 (1990) (presenting the results of a survey conducted of IPO investors, wealthy individuals, and institutional investors about the underpricing of IPOs) (“Only 26 percent of the IPO investor sample said they had done any calculations of what true fundamental value of a share in the company was, and compared the price of a share with this value.”).

beneficial impacts of bubbles would be lost. Bubbles cause a temporary over-allocation of resources, which can propel innovation.¹⁶² This pro-bubble argument loses steam, however, when one examines the devastating impacts of the MBS bubble on the economy.¹⁶³

IV. PRICE FRAUD IS ARGUABLY A VIABLE LEGAL THEORY UNDER SECURITIES FRAUD JURISPRUDENCE

The theory of price fraud imposes securities fraud liability on issuers and underwriters who knowingly issue securities at a price that is not rationally related to the securities' fundamental value. Academics in non-legal disciplines have previously proposed or assumed that this liability exists. For example, Patricia J. Hughes, a professor of management, argued that, to avoid the market failure caused by the information asymmetry between issuers and investors, issuers should be required to disclose firm value at the time of issue and should face penalties for fraudulent disclosure.¹⁶⁴ Similarly, other scholars have assumed—for purposes of

¹⁶² See SHILLER, *supra* note 16, at 229–30 (“Speculative markets perform critical resource-allocation functions . . . , and any interference with markets to tame bubbles interferes with these functions as well.”); Ljungqvist et al., *supra* note 129, at 1694 (“While our model does not specifically address social welfare, the possible expropriation of sentiment investors does give rise to some policy issues. To the extent that such expropriation subsidizes risk taking by young firms, social welfare may be enhanced. . . . Do the exuberant provide subsidy to the socially productive—or are they merely lunch for the avaricious?”); Stout, *supra* note 28, at 666 (“But if a firm does raise bargain-basement capital by selling inefficiently overpriced stock, those excess funds are unlikely to be wasted in unproductive projects.”); Michael Lewis, *In Defense of the Boom*, N.Y. TIMES, Oct. 27, 2002, at E44, *reprinted in* PANIC: THE STORY OF MODERN FINANCIAL INSANITY, *supra* note 72, at 239, 252 (“[I]f speculators drive up the price of tech stocks to ridiculous heights, a result is vast numbers of young people with technical training and a lust for entrepreneurship, a higher social status for the entrepreneur and, uncoincidentally, many interesting business ideas that are at the moment ahead of their time but one day may well be right of it. A result is also, in this case, hundreds of thousands of miles of surplus optical fiber, which is a bit wasteful—we don’t need it yet—but not a total waste: we will need it one day soon. Another result, finally, is a lot of formerly sleepy big companies that had the living hell scared out of them by upstarts—and scrambled to make themselves more efficient. Say what you will about the boom: it kept people on their toes.”).

¹⁶³ See *supra* text accompanying notes 57–60.

¹⁶⁴ Patricia J. Hughes, *Signalling by Direct Disclosure Under Asymmetric Information*, 8 J. ACC. & ECON. 119, 119 (1986) (“In this paper, an informational asymmetry exists between investors and the issuer of an initial public offering about the value of the security. To avoid market failure, a solution is proposed in which the issuer makes a disclosure about firm value that is verified by an investment banker. The investment banker enters into a contingent contract with

modeling the effects of litigation costs on the pricing of IPOs—that post-offering price drops will trigger securities fraud litigation¹⁶⁵ and liability.¹⁶⁶

This article is the first to argue, however, that price fraud is a viable theory under current securities fraud jurisprudence. As explained below, each element of securities fraud is arguably satisfied when an issuer or underwriter knowingly sets an offering price at a level that is not rationally related to the security's intrinsic value.

A. The Issuer and Underwriter Make an Implicit Representation that the Offering Price Is Rationally Related to Fundamental Value

The essence of securities fraud is a misrepresentation.¹⁶⁷ Investors cannot premise a securities fraud claim on a bad deal unless they can identify a fraudulent statement or omission that precipitated the bad deal.¹⁶⁸

This misrepresentation element is the key sticking point in imposing liability on issuers and underwriters for setting an offering price above fundamental value. As this element is currently applied, investors cannot sue the issuer and underwriter for securities fraud merely because they purchased overpriced stock in an IPO or an overpriced MBS, even if the issuer and underwriter knew that the price was inflated due to a bubble. Indeed, this article's author identified only one case in which securities investors attempted to premise liability on overpricing, and the court summarily rejected the attempt.¹⁶⁹

investors which imposes a penalty if the *ex post* observable cash flow indicates fraudulent disclosure.”).

¹⁶⁵ See Patricia J. Hughes & Anjan V. Thakor, *Litigation Risk, Intermediation, and the Underpricing of Initial Public Offerings*, 5 REV. FIN. STUD. 709, 719 (1992) (“To model the litigation game in a simple and realistic way, we assume that a lawsuit will be undertaken if investors and the courts infer *ex post* that there is a ‘sufficiently’ high probability that the IPO was ‘overpriced.’”).

¹⁶⁶ See Douglas A. Hensler, *Litigation Costs and the Underpricing of Initial Public Offerings*, 16 MANAGERIAL & DECISION ECON. 111, 114 (1995) (examining an issuer's motivation to underprice an IPO of equity to limit litigation risk and assuming for the purpose of the model that, if the stock price falls below an arbitrary trigger price, the court will find in favor of the investors in a subsequent lawsuit).

¹⁶⁷ See *Stoneridge Inv. Partners, LLC v. Scientific-Atlanta, Inc.*, 552 U.S. 148, 157 (2008) (listing the first element of a securities fraud claims as “a material misrepresentation or omission by the defendant”).

¹⁶⁸ See *id.*

¹⁶⁹ See *Rhodes v. Omega Research, Inc.*, 38 F. Supp. 2d 1353, 1364 (S.D. Fla. 1999) (finding that allegations regarding “‘price of the offering’ are baseless, are not actionable under sections 11

Rather, investors must identify a fraudulent misrepresentation or omission in the offering documents that inflated the offering price. For example, in *In re TyCom Ltd. Securities Litigation*, purchasers of stock in TyCom Ltd.'s IPO alleged that they were induced to purchase the TyCom stock at an inflated price by misrepresentations in the prospectus about the demand for undersea fiber-optic-cable bandwidth.¹⁷⁰ Similarly, in *Central Laborers' Pension Fund v. SIRVA, Inc.*, purchasers of SIRVA common stock pursuant to an IPO alleged that the prospectus made false statements or omissions about the health of SIRVA Europe, SIRVA's insurance reserves, and SIRVA's earning projections and accounting practices.¹⁷¹

This article overcomes this obstacle to securities fraud liability by showing that, by setting a security's offering price, the issuer and underwriter make an implicit representation that the price is reasonably related to the security's intrinsic value. This implicit representation, if knowingly false at the time of issue, could form the basis for a securities fraud claim against the issuer and underwriter. Therefore, under the price-fraud theory, an investor who purchased overpriced stock in an IPO or an overpriced MBS could hold the issuer and underwriter liable for securities fraud if they knew that the offering price was not reasonably related to the security's intrinsic value, as long as the other elements of securities fraud were satisfied.¹⁷²

In particular, this article shows that implicit representations are recognized in securities fraud cases when there is an information imbalance and the implicit representation is reasonably understood. Both of these components are present in the setting of a security's offering price. First, issuers and underwriters possess superior information to that of investors.¹⁷³

or 12(a)(2), fall well within the bespeaks caution doctrine, and shall be dismissed with prejudice"); see also *In re VeriFone Sec. Litig.*, 11 F.3d 865, 870 n.7 (9th Cir. 1993) (not reaching the issue of overpricing because "the shareholders never specifically designate the VeriFone IPO price as an actionable misrepresentation in their Amended Complaint").

¹⁷⁰No. 03-CV-1352-PB, 2005 WL 2127674, at *1 (D.N.H. Sept. 2, 2005).

¹⁷¹No. 04-C-7644, 2006 WL 2787520, at *4-5 (N.D. Ill. Sept. 22, 2006) (purchaser of SIRVA common stock pursuant to the IPO alleged that the prospectus made false statements or omissions about the health of SIRVA Europe, SIRVA's insurance reserves, and SIRVA's earning projections and accounting practices).

¹⁷²Of course, the other elements of securities fraud—falsity, scienter, materiality, reliance, and loss causation—must also be met. See *Stoneridge*, 552 U.S. at 157. These elements are analyzed below in Part IV.B.

¹⁷³See Hughes, *supra* note 164, at 119 (referencing informational asymmetry); *infra* Part IV.A.2.

Second, investors intuitively understand that the offering price of a security should be rationally related to the security's fundamental value.¹⁷⁴ This intuition is supported by research in the fields of marketing and economics that demonstrates that purchasers interpret prices as a signal about fundamental characteristics.¹⁷⁵ Moreover, the relationship between an increase in offering price and higher first-day returns is consistent with investors' interpreting offering price as a signal of fundamental value.¹⁷⁶

1. Implicit Representations Are Recognized in Securities Fraud Cases when There Is an Information Imbalance and the Implicit Representation Is Reasonably Understood

Securities fraud liability can be premised on fraudulent implicit representations, as well as fraudulent explicit representations. The most frequently recognized implicit representations in securities fraud cases are those underlying predictions and opinions expressed by officers and directors.¹⁷⁷ Neither a prediction nor an opinion is itself actionable merely because it turns out to be inaccurate.¹⁷⁸ Underlying a prediction or an opinion, however, is an implicit representation that the prediction or opinion has a reasonable basis.¹⁷⁹ If, at the time that a prediction or opinion is expressed, it lacks a reasonable basis, this false implicit representation is actionable as securities fraud, assuming the other elements of fraud are satisfied.¹⁸⁰ For example, a top corporate official's statement that he was

¹⁷⁴ See *infra* Part IV.A.3.a.

¹⁷⁵ See *infra* Part IV.A.3.a.

¹⁷⁶ See *infra* Part IV.A.3.c.

¹⁷⁷ See *In re Burlington Coat Factory Sec. Litig.*, 114 F.3d 1410, 1428 (3d Cir. 1997) ("As explained by the Court in *Virginia Bankshares*, statements of opinion by corporate officials can be materially significant to investors because investors know that these top officials have knowledge and expertise far exceeding that of the ordinary investor.").

¹⁷⁸ See *Kowal v. MCI Commc'ns Corp.*, 16 F.3d 1271, 1276 (D.C. Cir. 1994) (holding that in order "[t]o state a claim for securities fraud . . . , a plaintiff must allege that the defendant knowingly or recklessly made a false or misleading statement of material fact in connection with the purchase or sale of a security, upon which plaintiff reasonably relied, proximately causing his injury" (footnote omitted)).

¹⁷⁹ See *id.* at 1277 ("Accordingly, projections and statements of optimism are false and misleading for the purposes of the securities laws if they were issued without good faith or lacked a reasonable basis when made.").

¹⁸⁰ See *Isquith v. Middle S. Utils., Inc.*, 847 F.2d 186, 203-04 (5th Cir. 1988) ("Most often, whether liability is imposed depends on whether the predictive statement was 'false' when it was made. The answer to this inquiry, however, does not turn on whether the prediction in fact proved

"comfortable" with analysts' projections of earning was actionable if it was not made with a reasonable basis.¹⁸¹

These implicit representations are recognized when two elements are present: (1) an information imbalance exists between the speaker and the audience; and (2) the implicit representation is reasonably understood by the audience.¹⁸² For example, in *Virginia Bankshares, Inc. v. Sandberg*, the seminal case about implicit representations, the Supreme Court held that a board of directors' statements that a proposed buy-out price for minority shareholders' stock was "high" and that the merger's terms were "fair" were actionable to the extent they did not rest on a factual basis justifying them as accurate.¹⁸³ The Court recognized that "directors usually have knowledge and expertise far exceeding the normal investor's resources" and that "such conclusory terms in a commercial context are reasonably understood to rest on a factual basis."¹⁸⁴ Similarly, in *Marx v. Computer Sciences Corp.*, the Ninth Circuit recognized that, implicit within an executive's forecast of a net income of approximately \$1.00 per share, was a representation that this was the company's "informed and reasonable belief" on the date of the statement.¹⁸⁵ This implicit representation would be untrue if the company "did not then believe earnings would be in that amount," "knew that there was reason to believe they would not be," or did not premise the forecast on "a reasonable method of preparation and a valid

to be wrong; instead, falsity is determined by examining the nature of the prediction—with the emphasis on whether the prediction suggested reliability, bespoke caution, was made in good faith, or had a sound factual or historical basis."); Bruce A. Hiler, *The SEC and the Courts' Approach to Disclosure of Earnings Projections, Asset Appraisals, and Other Soft Information: Old Problems, Changing Views*, 46 MD. L. REV. 1114, 1126 (1987) ("[T]he only truly factual elements involved in a projection are the implicit representations that the statements are made in good faith and with a reasonable basis.").

¹⁸¹ See *In re Burlington Coat Factory*, 114 F.3d at 1428–29; see also *Roots P'ship v. Lands' End, Inc.*, 965 F.2d 1411, 1417 (7th Cir. 1992) ("Although defendants' alleged statements were contingent by their very nature, a reasonable investor could have taken them to imply that defendants' had a reasonable basis for stating that Lands' End's earnings goal was attainable in fiscal 1990.").

¹⁸² See *Va. Bankshares, Inc. v. Sandberg*, 501 U.S. 1083, 1091, 1093 (1991).

¹⁸³ *Id.* at 1091, 1093.

¹⁸⁴ *Id.*; see also *In re Burlington Coat Factory*, 114 F.3d at 1428 ("As explained by the Court in *Virginia Bankshares*, statements of opinion by corporate officials can be materially significant to investors because investors know that these top officials have knowledge and expertise far exceeding that of the ordinary investor.").

¹⁸⁵ See 507 F.2d 485, 490 (9th Cir. 1974).

basis.”¹⁸⁶ In reaching this conclusion, the court noted “the disparity between the parties in access to the information necessary to judge the accuracy of the forecast” and that this is “what a reasonable investor would take the statement to mean.”¹⁸⁷ As a further example, in *Wharf (Holdings) Ltd. v. United International Holdings, Inc.*, the Supreme Court recognized that the sale of an option carries with it an implicit representation of the seller’s intention to permit the option’s exercise.¹⁸⁸ The seller’s intention not to perform was secret, and thus this information was not available to the buyer, and the implicit representation was reasonably understood “because a buyer normally presumes good faith.”¹⁸⁹

2. When the Issuer and Underwriter Set a Security’s Offering Price, There Is an Information Imbalance

Although issuers and underwriters must comply with detailed disclosure obligations when offering securities, those obligations do not require the disclosure of every piece of inside information about the company.¹⁹⁰

¹⁸⁶ *Id.*

¹⁸⁷ *Id.*

¹⁸⁸ See 532 U.S. 588, 596 (2001) (“But even were it the case that the Act covers only misrepresentations likely to affect the value of securities, Wharf’s secret reservation was such a misrepresentation.”).

¹⁸⁹ *Id.*

¹⁹⁰ See *Oxford Asset Mgmt., Ltd. v. Jaharis*, 297 F.3d 1182, 1190 (11th Cir. 2002) (“Oxford first argues that issuers have a duty to disclose, in the prospectus, *all* information material to the offering. We disagree.”); *Cooperman v. Individual, Inc.*, 171 F.3d 43, 49 (1st Cir. 1999) (“Although in the context of a public offering there is a strong affirmative duty of disclosure, it is clear that an issuer of securities owes no absolute duty to disclose all material information.”); 17 J. WILLIAM HICKS, CIVIL LIABILITIES: ENFORCEMENT & LITIGATION UNDER THE 1933 ACT § 4.66 (2002 & Supp. 2010) (“Furthermore, not all material forward-looking information in the issuer’s possession at the time its registered offering commences is required to be disclosed in a registration statement.”); Thomas Gilroy & Mary Elizabeth Pratt, *Preparing the Management’s Discussion and Analysis*, 874 PRACTISING L. INST.: CORP. L. & PRAC. HANDBOOK SERIES 199, 239 (1995) (citing *Basic, Inc. v. Levinson*, 485 U.S. 224 (1988)) (“The MD&A is not a general requirement for disclosure of all material information regarding a registrant, though it obviously calls for a very broad review since virtually any material business or financial development can have a material impact on the registrant’s prospective liquidity, capital resources or operating results. There is no general requirement in the federal securities laws for a registrant to disclose all material information.”); Donald C. Langevoort & G. Mitu Gulati, *The Muddled Duty to Disclose Under Rule 10b-5*, 57 VAND. L. REV. 1639, 1677 (2004) (“[W]here the SEC has addressed a subject by setting affirmative disclosure rules, the *presumption* should be that the antifraud rules require nothing else. Thus, the scope of disclosure in a public offering should be

Indeed, there is an imbalance between the information available to the issuer and the underwriter, on the one hand, and the information available to the investors, on the other hand.

This information imbalance is roundly recognized in the context of IPOs. As explained by legal scholars John Coffee and Hillary Sale: “[C]orporate managers who have non-public access to material information about the firm’s future cash flows may be more likely to issue equity securities when they perceive the firm to be overvalued by the market than when they perceive it to be undervalued.”¹⁹¹ Similarly, economists, when creating models about IPO pricing, assume the presence of this asymmetry.¹⁹²

Indeed, in recognition of this informational asymmetry, investors interpret various corporate decisions during a securities issue as signals about inside information.¹⁹³ For example, research indicates that investors interpret a firm’s decision to issue equity as a signal that insiders believe the

what the instructions of the relevant form require.”); *but see* Harry S. Gerla, *Issuers Raising Capital Directly From Investors: What Disclosure Does Rule 10b-5 Require?*, 28 J. CORP. L. 111, 126–27 (2002) (arguing that Section 10(b) of the Securities Exchange Act imposes broader disclosure duties on issuers than encompassed within the SEC’s affirmative disclosure rules).

¹⁹¹ COFFEE ET AL., *supra* note 115, at 76.

¹⁹² *See* Kim & Ritter, *supra* note 115, at 413 (“It is often assumed that insiders of IPOs have better information about the expected value of their projects than outside investors do.”); Stewart C. Myers & Nicholas S. Majluf, *Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have* 6 (Nat’l Bureau of Econ. Research, Working Paper No. 1396, 1984) (“We assume the firm (i.e., its managers) has information that investors do not have, and that both managers and investors realize this. We take this information asymmetry as given—a fact of life.”).

¹⁹³ *See* Ritter & Welch, *supra* note 85, at 1821 (“It is not surprising that firms are eager to look good when they conduct their IPO, and that the market has difficulties in disentangling carefully hidden warning signals.”).

firm is overvalued by the market¹⁹⁴ and that investors interpret the choice of a reputable underwriter as a signal of a high-quality issue.¹⁹⁵

This informational asymmetry has also been widely recognized in the wake of the recent MBS debacle, where MBS investors purchased securities with insufficient information about the default risks of the underlying mortgages.¹⁹⁶ This information imbalance has been discussed in SEC staff reports,¹⁹⁷ congressional hearings,¹⁹⁸ and scholarly publications.¹⁹⁹

¹⁹⁴ COFFEE ET AL., *supra* note 115, at 76–77 (“Aware of this incentive [to issue equity when the market overvalues the firm], investors may reduce the firm’s value upon the announcement of a common stock issue, viewing the announcement as a signal of overvaluation.”); Bruce Greenwald et al., *Informational Imperfections in the Capital Market and Macroeconomic Fluctuations*, 74 AM. ECON. REV. 194, 195 (1984) (“Greater reliance on debt by good firms means that equity will predominantly be sold by inferior ones. Thus, attempting to sell equity may convey a strong negative signal about a firm’s quality and reduce its market value accordingly.” (citation omitted)); Myers & Majluf, *supra* note 192, at 4 (“[I]nvestors, aware of their relative ignorance, will reason that a decision *not* to issue shares signals ‘good news.’ The news conveyed by an issue is bad or at least less good.”).

¹⁹⁵ Lily Hua Fang, *Investment Bank Reputation and the Price and Quality of Underwriting Services*, 60 J. FINANCE 2729, 2731 (2005) (“Overall, the findings suggest that banks’ underwriting decisions reflect reputation concerns, and thus are informative of issue quality. Investors infer a positive signal when a reputable underwriter agrees to put his name on the line, and *ceteris paribus*, the market clears at a higher price for the issuer.”).

¹⁹⁶ See SHILLER, *supra* note 70, at 135 (2008) (“Those who bought residential-mortgage-backed securities based on subprime mortgages typically did so with little more information than that contained in the ratings given them by rating agencies. And while the rating agencies themselves release additional information, the ratings are the only easily interpreted and compared pieces of information, and even these are released only with caveats.”).

¹⁹⁷ See SEC ET AL., *supra* note 106, at 40 (recognizing that “MBS issuers and originators might not reveal all the information in their possession about the MBS”).

¹⁹⁸ See *Credibility of Credit Ratings: Hearing*, *supra* note 22, at 503–04 (statement of Mark Froeba, Former Senior Vice President, U.S. Derivatives, Moody’s Investors Service) (testifying about the information imbalance between investment banks and ratings analysts) (“[T]here were often times when things were hidden, concealed, misrepresented.”); *Subprime Lending and Securitization: Hearing*, *supra* note 53, at 210–11 (statement of Patricia Lindsay, Former Vice President, Corporate Risk, New Century Financial Corporation) (describing the buyers of securitized subprime mortgages as “unsophisticated” because “they didn’t know the risk of the underlying product”).

¹⁹⁹ See, e.g., KRUGMAN, *supra* note 4, at 149 (“[T]he lenders didn’t concern themselves with the quality of their loans because they didn’t hold on to them. Instead, they sold them to investors, who didn’t understand what they were buying.”); POSNER, *supra* note 2, at 59 (“Banks that packaged and sold mortgage-backed securities had little incentive to make careful estimates of the riskiness of the mortgages that backed the securities, because sale shifted the risk of default to the purchasers of the securities. Prospective purchasers had an incentive to assess that risk, of course,

Economists Steven Drucker and Christopher Mayer explain this imbalance in more detail:

Underwriters either own or work quite closely with mortgage originators and servicers in the pools that they represent and thus possess non-public information about the quality of the collateral underlying the securitization and sometimes about the pool's subsequent performance. For example, originators have access to detailed information about the borrower that is not typically disclosed to investors, such as the number of points paid at origination and the payment-to-income ratio of the borrower.²⁰⁰

Based on this information imbalance, Drucker and Mayer studied underwriters' investment behavior in the secondary market with respect to MBS that they brought to market, concluding that "underwriters appear to exploit access to better information and models to their own advantage."²⁰¹

3. When the Issuer and Underwriter Set a Security's Offering Price, Investors Reasonably Understand that the Price Is Rationally Related to Fundamental Value

At the heart of the price-fraud theory is the assertion that investors reasonably understand that a security's offering price is rationally related to fundamental value. Without this, there is no implicit representation on which to premise a securities fraud claim. This article, drawing from investors' intuitive understanding of offering prices and from marketing and

but they had less information than the originators."); Bethel et al., *supra* note 8, at 18 ("Linked to these investigations are allegations that some MBS sponsors may have ignored or withheld information about the credit risks of the mortgage pools and may have even pressured due-diligence firms to overlook credit issues on loans.").

²⁰⁰ Drucker & Mayer, *supra* note 108, at 1–2.

²⁰¹ See *id.* abstract, 2 ("While underwriters bid on the vast majority of their own tranches, the 17% of tranches that they avoid bidding on exhibit much worse-than-average ex-post performance. When an underwriter declines to submit a bid at a secondary market sale, 30-day delinquent loans are up to four times more likely to be reported as missing their next payment compared to securities in which the underwriter bids. . . . When underwriters bid on securities, the underlying mortgage pools have higher payoff rates in the four months after the auction, indicating that such pools are more likely to be valuable. Instead of acting as unbiased market makers, underwriters appear to exploit access to better information and models to their own advantage.").

economics research, argues that investors do reasonably interpret a security's offering price as a signal of the firm's fundamental value.

a. Intuitively, a Security's Offering Price Is Rationally Related to Fundamental Value

The idea that a security's offering price rationally relates to fundamental value has intuitive appeal. Indeed, in *Glassman v. Computervision Corp.*, the First Circuit recognized that a security's offering price is a representation about the firm's fundamental value: "The price set for an offering of securities is essentially a forecast. Price can be characterized as a present value calculation of the firm's future streams of earnings or dividends."²⁰²

This intuitive relationship between offering price and fundamental value has also been noted by underwriters, the SEC, and investors. In 1963, after conducting a comprehensive study of the securities markets, the SEC reported that some underwriters feel that overpricing is inappropriate during a speculative boom: "Some underwriters suggested that it would have been improper to try to get as much as the market would bear, where such a price was not justified by any of the usual yardsticks of value."²⁰³ Similarly, in the context of attempting to prevent perceived under-pricing of IPOs, the SEC acknowledged an underwriter's duty to price to fundamentals:

[T]he underwriter must exercise care to assure that the price reflects what he and the issuer reasonably believe, after the underwriter's due diligence investigation, to be the value of the securities giving weight to, among other factors, such fundamentals as the business, operations, and prospects of the issuer and the nature and financial condition of the issuer.²⁰⁴

²⁰² 90 F.3d 617, 626 (1st Cir. 1996); *but see* *Gruber v. Price Waterhouse*, 776 F. Supp. 1044, 1052 (E.D. Pa. 1991) ("In an initial public offering it cannot be assumed price reflects value because there is simply no open and developed market. Instead, interested parties have set the price.").

²⁰³ See SEC, REPORT OF SPECIAL STUDY OF SECURITIES MARKETS OF THE SECURITIES AND EXCHANGE COMMISSION, H.R. DOC. NO. 88-95, pt. 1, at 501 (1963).

²⁰⁴ SEC, HOT ISSUES, S.E.C. RELEASE NO. 5274, at 4 (1972).

Finally, a survey of IPO investors conducted by Robert Shiller found that “there appears to be an idea that underwriters should charge ‘fair’ prices for issues, even when they could obtain a lot more.”²⁰⁵

This intuitive connection between price and fundamental value also exists beyond the securities markets. In a groundbreaking 1944 article, economist Tibor Scitovsky noted the connection between price and product quality: “Another important index of quality is price. Economists are wont to minimize the importance of this factor, fearing the havoc it may wreak with the whole theory of choice. But ‘mass observation’ of one’s friends and their wives shows that more often than not people judge quality by price.”²⁰⁶

The intuitive relationship between price and fundamental characteristics is reflected in the common usage of words about price to convey information about fundamental value.²⁰⁷ Words like cheap, low-budget, and low-rent are used to convey negative information about quality.²⁰⁸ Similarly, words like expensive, top-dollar, and top-shelf are used to convey positive information about quality.²⁰⁹ By the same token, in the securities markets, so-called “penny stocks” and other lower-priced offerings are interpreted as of lower quality.²¹⁰

This connection between price and fundamental characteristics, such as value of a security or quality of a good, is intuitive because it is logical.²¹¹

²⁰⁵ Shiller, *supra* note 161, at 62 (presenting the results of a survey conducted of IPO investors, wealthy individuals, and institutional investors about the underpricing of IPOs).

²⁰⁶ Tibor Scitovsky, *Some Consequences of the Habit of Judging Quality by Price*, 12 REV. ECON. STUD. 100, 100 (1944–45).

²⁰⁷ *See id.*

²⁰⁸ *See id.* (“The word ‘cheap’ usually means inferior quality nowadays . . .”).

²⁰⁹ *See id.* (“[I]n the United States ‘expensive’ is in the process of losing its original meaning and becoming a synonym for superior quality.”); Arthur G. Bedeian, *Consumer Perception of Price as an Indicator of Product Quality*, MICH. ST. U. BUS. TOPICS, Summer 1971, at 60 (“Today, more than ever, the word *expensive* has come to connote quality in the mind of the consumer.”).

²¹⁰ *See* Fernando et al., *supra* note 131, at 9 (“It is also possible that institutions may avoid investing in low-priced stocks, since these may be viewed negatively as ‘penny stocks.’”); accord Allen, *supra* note 108, at 346–47 (“[M]anagers with significant institutional customers often desire to price an IPO at between \$13.00 and \$20.00 per share because a bias exists among some sophisticated investors against lower-priced offerings, which sometimes are viewed as being associated with lesser quality companies.”).

²¹¹ *See* Bedeian, *supra* note 209, at 60 (“The perception of price as an indicator of product quality is basically rational. It indicates a trust in the forces of supply and demand and is based on

A logical person reads behind a price to the underlying supply and demand curves, interpreting a higher price as indicative of a security that merits higher demand because of its higher fundamental value or a good that merits higher demand because of its higher quality.²¹² As Scitovsky explained, interpreting price as a signal of quality “merely implies a belief that price is determined by the competitive interplay of the rational forces of supply and demand.”²¹³ These very same forces underlie the setting of a security’s offering price.

Purchasers’ logical interpretation of price as a signal of fundamental characteristics turns conventional demand theory on its head.²¹⁴ Under conventional demand theory, a demand curve is negatively sloped because, the higher the price, the lower the demand.²¹⁵ When purchasers interpret price as a signal of fundamental characteristics, however, a demand curve may be positively sloped: the higher the price, the higher the demand.²¹⁶

the assumption that prevailing market prices exist because they were found to be fair and reasonable.”); Eitan Gerstner, *Do Higher Prices Signal Higher Quality?*, 22 J. MARKETING RES. 209, 209 (1985) (“In a perfectly functioning market, one might expect a strong, positive relationship between product quality and price.”).

²¹² See Kyle Bagwell & Michael H. Riordan, *High and Declining Prices Signal Product Quality*, 81 AM. ECON. REV. 224, 224–25 (1991) (“The most efficient way for the firm to signal high quality is to charge a price too high to be profitable if the product were in fact of lower quality. This high-price strategy is potentially successful for two reasons. First, the consequent loss of sales volume is less damaging to a higher-cost product. Second, a lower-quality product would lose more sales from informed consumers by charging a high price. Understanding this, uninformed consumers rationally infer higher quality from the higher price.”); Gerstner, *supra* note 211, at 209 (“Price can convey demand-related quality information or supply-related quality information. A high price may reflect either a high demand for superior quality or the high production costs associated with high quality.”).

²¹³ Scitovsky, *supra* note 206, at 100; see Kent B. Monroe & R. Krishnan, *The Effect of Price on Subjective Product Evaluations*, in PERCEIVED QUALITY: HOW CONSUMERS VIEW STORES AND MERCHANDISE 209, 210 (Jacob Jacoby & Jerry C. Olson eds., 1985) (citing Scitovsky, *supra* note 206, at 100); Akshay R. Rao & Kent B. Monroe, *The Effect of Price, Brand Name, and Store Name on Buyers’ Perceptions of Product Quality: An Integrative Review*, 26 J. MARKETING RES. 351, 351 (1989) (citing Scitovsky, *supra* note 206, at 100).

²¹⁴ See Monroe & Krishnan, *supra* note 213, at 209–10.

²¹⁵ See Harold J. Leavitt, *A Note on Some Experimental Findings About the Meanings of Price*, 27 J. BUS. 205, 205 (1954) (“Conventional price analysis takes the generalized view that demand curves are negatively sloped. The purchase of a product is expected to decline as its price increases and to increase as its price declines—other factors being equal.”).

²¹⁶ See *id.* at 210 (“These findings suggest that demand curves may not invariably be negatively sloped, that price itself may have more than one meaning to a consumer, and that a higher price may sometimes increase, rather than decrease, his readiness to buy.”).

The phenomenon of a price's dual impact on demand has been widely noted by economists, behavioral scientists, and marketing researchers.²¹⁷ As explained by economist Joseph E. Stiglitz, "[O]ne can think of the change in the price as having two effects: a movement along a fixed-information demand curve, and a shift in the demand curve from the change in information (beliefs)."²¹⁸

b. Research Supports the Conclusion that Investors Interpret a Security's Offering Price as a Signal of Fundamental Value

In the field of marketing, compelling research shows that consumers interpret product price as a signal of quality when consumers possess incomplete information.²¹⁹ Similarly, economists theorize that investors interpret market clearing prices as signals of underlying data about the securities' fundamental value.²²⁰ These fields of research support the intuitive recognition that a security's offering price is a signal of the security's fundamental value.²²¹ Moreover, the demonstrated relationship between an increase in offering price and higher first-day returns is

²¹⁷ See Bedeian, *supra* note 209, at 64 ("[T]he traditional demand curve may not invariably be negatively shaped. Price has come to have at least two meanings to the consumer: (1) as a measure of cost, and (2) as an indicator of quality."); Leavitt, *supra* note 215, at 210 ("These findings suggest that demand curves may not invariably be negatively sloped, that price itself may have more than one meaning to a consumer, and that a higher price may sometimes increase, rather than decrease, his readiness to buy. . . . One might guess that a high price may be an attracting instead of a repelling force for particular brands of many different kinds of items."); Monroe & Krishnan, *supra* note 213, at 209 ("[B]ehavioral-science researchers have shown that evaluation and choice are related and involve two separate mental processes. Further, it has been shown that price can affect the evaluation as well as the choice of a product."); Sanford J. Grossman & Joseph E. Stiglitz, *Information and Competitive Price Systems*, 66 AM. ECON. REV. 246, 249 (1976) ("[A]n increase in price may actually increase demand; the presumption for a downward sloping demand curve is much weaker when individuals judge quality by price.").

²¹⁸ Joseph E. Stiglitz, *The Causes and Consequences of the Dependence of Quality on Price*, 25 J. ECON. LITERATURE 1, 3 (1987) ("[D]emand curves, may under quite plausible conditions, not be downward sloping.").

²¹⁹ See Bedeian, *supra* note 209, at 59; Monroe & Krishnan, *supra* note 213, at 210 ("If buyers do not possess perfect information about product attributes, then they must make some inferences from the information cues available, one of which is price. Thus, price might be used as an indicator of the qualities inherent in the product, and, if so, a higher price might lead to the perception of higher product quality.").

²²⁰ See Bedeian, *supra* note 209, at 60

²²¹ See *infra* Part IV.A.3.b.iii.

consistent with investors' interpreting offering price as a signal of fundamental value.²²²

i. Marketing Research Shows that Consumers Interpret Product Price as a Signal of Quality when There Is Asymmetric Information

Marketing researchers have focused much attention on consumers' perceptions of price as a signal of a product's fundamental quality.²²³ In general, the data shows that consumers interpret a product's price as indicative of quality.²²⁴ In other words, consumers generally believe that "you get what you pay for."²²⁵ Companies, aware of this signaling role of prices, sometimes use the high price of a particular good as an advertising slogan.²²⁶ For example, according to marketing professor Benson P.

²²² See *infra* Part IV.A.3.c.

²²³ See Monroe & Krishnan, *supra* note 213, at 209 ("Of the several types of product evaluations that have been investigated in the past, price effects on the perception of product quality have been one of the most frequently examined. . . . [B]ehavioral-science researchers have shown that evaluation and choice are related and involve two separate mental processes. Further, it has been shown that price can affect the evaluation as well as the choice of a product.").

²²⁴ See Bedeian, *supra* note 209, at 63 ("In making any culminating comments concerning the findings of these five briefed studies, it seems clear that there is one point upon which they all agree: price often seems to be perceived as an indicator of product quality by the consumer."); Monroe & Krishnan, *supra* note 213, at 222 (summarizing studies to date) ("Some studies have considered situations when the only differential information available was price. Generally, these single-cue studies have found a positive and statistically significant price-perceived-quality relationship. However, other studies have varied other cues in addition to price, including actual product samples, promotional, store, and brand information. Although the multicue studies have found a positive price-perceived-quality relationship, generally, such a relationship was not statistically significant."); Rao & Monroe, *supra* note 213, at 355 (performing study and reporting results) ("[T]he price effect on perceived quality for consumer products is moderately large and statistically significant."); Raymond C. Stokes, *The Effects of Price, Package Design, and Brand Familiarity on Perceived Quality*, in PERCEIVED QUALITY: HOW CONSUMERS VIEW STORES AND MERCHANDISE, *supra* note 213, at 233, 243 (summarizing results of study involving rice) ("Based upon most of the research on price-quality-perception, it was expected that the price main effect would be significant on the quality-rating dependent variable. The confirmation of this expectation lends some additional support for a generalized price-quality-perception hypothesis.").

²²⁵ Gerstner, *supra* note 211, at 209 (reviewing prior studies and reporting that "consumers indeed believe that high prices are indicators of better quality, a belief that 'you get what you pay for'").

²²⁶ See, e.g., Scitovsky, *supra* note 206, at 100 ("Worse still, one of the largest American breweries uses the advertising slogan: 'Michelob, America's highest-priced beer!'").

Shapiro, Johnnie Walker Black used the following slogan in 1967: "At \$9.40 it's expensive."²²⁷

And yet, despite general acceptance of the signaling effect of product price, the strength of the price signal is not uniform.²²⁸ Rather, further marketing research shows that a product's price has the strongest signaling effect when there is a perceived quality difference among various products and there is an information imbalance between the manufacturer and the consumer.²²⁹

The presence of a stronger price signaling effect in goods with perceived quality differences is logical.²³⁰ If a consumer does not believe that two different brands of a particular good differ in fundamental characteristics, a difference in their prices is unlikely to convince the consumer otherwise.²³¹ As explained by marketing scholars Robert A.

²²⁷ Benson P. Shapiro, *The Psychology of Pricing*, 46 HARV. BUS. REV., July-Aug. 1968, at 14, 25 ("Differences in the taste of scotch are not perceived by most people. The price, usually in the \$6-\$10 range, is large enough to bring the expended effort concept into play. . . . [T]he price of scotch is an effective indicator of quality for many consumers. It is interesting to note that in 1967 the Christmas advertisements for Johnnie Walker Black emphasized that 'At \$9.40 it's expensive.'").

²²⁸ See William B. Dodds et al., *Effects of Price, Brand, and Store Information on Buyers' Product Evaluations*, 28 J. MARKETING RES. 307, 316 (1991) (conducting study and reporting results) ("Overall, when price was the only extrinsic cue available, the subjects clearly perceived quality to be related positively to price. When other extrinsic information was present, the results were less persuasive."); Donald R. Lichtenstein & Scot Burton, *The Relationship Between Perceived and Objective Price-Quality*, 26 J. MARKETING RES. 429, 429 (1989) (reviewing prior research) ("Extant research evidence suggests that though the use of price as an indicator of product quality is widespread, the impact of price varies significantly across individuals and products being judged." (citations omitted)).

²²⁹ See Bedeian, *supra* note 209, at 64.

²³⁰ See *id.* at 64 (reviewing previous studies and concluding that goods with large consumer-perceived quality differences are more likely to possess positively sloped demand curves); Zarrel V. Lambert, *Price and Choice Behavior*, 9 J. MARKETING RES. 35, 40 (1972) (conducting a study and the price-perceived quality relationship and concluding that "[g]enerally, persons who chose the high-priced item perceived large quality variation within the product category and saw the consequences of a poor choice as being undesirable"); Shapiro, *supra* note 227, at 25 (referring to previous studies and concluding that price is more likely to be perceived as a signal of quality if there are "large, perceived quality differences between competing brands").

²³¹ See Robert A. Peterson & William R. Wilson, *Perceived Risk and Price-Reliance Schema as Price-Perceived-Quality Mediators*, in PERCEIVED QUALITY: HOW CONSUMERS VIEW STORES AND MERCHANDISE, *supra* note 213, at 247, 249 ("To the extent product-quality variation is low or absent and subjects are aware of this lack of variation a price-perceived-quality effect would not be expected.").

Peterson and William R. Wilson: "Obviously, a condition that is indispensable for obtaining the price-perceived-quality effect in an experiment is that subjects perceive the products within the class being investigated to vary in quality."²³² Therefore, items with perceived quality differences, like wine and perfume, have stronger price signaling,²³³ while items without perceived quality differences, like sandwich bags, have weaker price signaling.²³⁴

Similarly, it makes sense that the price signaling effect would be stronger in circumstances where the consumer does not possess the requisite information to make a direct assessment of quality.²³⁵ Marketing scholars Kent B. Monroe and R. Krishnan explain:

If buyers do not possess perfect information about product attributes, then they must make some inferences from the information cues available, one of which is price. Thus, price might be used as an indicator of the qualities inherent in the product, and, if so, a higher price might lead to the perception of higher product quality.²³⁶

Indeed, numerous marketing researchers have noted that purchasers are more likely to interpret price as a signal of quality when they are unable to make a direct assessment of the product's quality, usually because of an information imbalance.²³⁷

²³² *Id.*

²³³ See *id.* at 250 (reporting the results of a survey) (noting that the price-perceived-quality effect was present for "wine and perfume—two products that are commonly thought to have substantial variations in quality and whose quality is difficult to evaluate objectively").

²³⁴ Valerie A. Zeithaml, *Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence*, J. MARKETING, July 1988, at 2, 12 (reviewing prior studies) ("[I]n categories where little variation is expected among brands (such as salt or paper sandwich bags), price may function only as an indication of sacrifice whereas in categories where quality variation is expected (such as canned seafood or washing machines), price may function also as an indication of quality.").

²³⁵ See *id.* at 8 (reviewing prior studies) ("Price . . . appears to function as a surrogate for quality when the consumer has inadequate information about intrinsic attributes.").

²³⁶ See Monroe & Krishnan, *supra* note 213, at 210.

²³⁷ See Bedeian, *supra* note 209, at 59 ("The modern consumer is faced with the uncomfortable task of attempting to judge product quality through the use of imperfect knowledge and with the aid of personal self-perceived quality criteria. . . . Perhaps a more important measure of quality as perceived by the consumer is product price."); Lichtenstein & Burton, *supra* note 228, at 432 (reviewing prior studies) ("There are several possible reasons for this greater reliance on price as an indicator of quality for durable goods. It may reflect less knowledge about durable

Notably, several researchers have recognized the potential for marketers to take advantage of consumers by sending false signals of quality by setting prices at a level higher than merited by the goods' fundamental characteristics.²³⁸ This article contends that this same potential for fraud is present when issuers and underwriters set the offering price of securities.

ii. Economic Theory Supports the Informational Role of Securities Prices

Economists have identified a similar signaling effect in securities prices.²³⁹ Purchasers who lack full information about a particular security rely on the security's price to convey information about the security's fundamental value.²⁴⁰ As explained by economist Joseph E. Stiglitz: "In capital markets, the price at which a security sells may convey information concerning the expected return of the security (or the likelihood of the occurrence of various states)."²⁴¹ As a consequence of this informational role of securities prices, a higher price may increase a purchaser's demand for a security.²⁴² Similarly, as explained by economist Sanford J. Grossman, a lower price may decrease a purchaser's demand:

goods because the consumer is likely to have made fewer purchases in the average durable goods category and any purchases are likely to have been made less recently."); Shapiro, *supra* note 227, at 25 (referring to previous studies and concluding that "products which are difficult to judge on bases other than price would be most likely to have positively sloped demand curves"); Stokes, *supra* note 224, at 243 (summarizing results of study involving rice) ("Previous research has shown that price is used more as a quality cue in situations where uncertainty exists, such as with unfamiliar brands. This was found to be true in this experiment, supporting results found in previous research.").

²³⁸ See Lichtenstein & Burton, *supra* note 228, at 430 ("[W]hen the price-perceived quality and price-objective quality research streams are considered jointly, results suggest that consumers who rely on price to indicate quality may often be misled."); Gerstner, *supra* note 211, at 209 ("Consumer expectations of higher quality at higher prices can be self-fulfilled only if sellers do not find it profitable to 'cheat' by conveying false market signals—charging higher prices for lower quality.").

²³⁹ See, e.g., Stiglitz, *supra* note 218, at 3 ("When the price of some security is higher, uninformed buyers may infer that the expected return is higher, and their demand may increase." (citations omitted)).

²⁴⁰ See F.A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519, 526 (1945) ("Fundamentally, in a system where the knowledge of the relevant facts is dispersed among many people, prices can act to coordinate the separate actions of different people in the same way as subjective values help the individual to coordinate the parts of his plan.").

²⁴¹ Stiglitz, *supra* note 218, at 32.

²⁴² See *id.* at 3 ("When the price of some security is higher, uninformed buyers may infer that

A typical consumer goes to work during the day on some activity that may provide him with no information about a particular security he owns. Suppose he comes home at the end of the day to find that the price has fallen. One surely does not suppose that he then increases his demand for the security, as if his preferences were unchanged and his budget constraint has made the holding of the security cheaper. In fact, he may decide to keep his security holding unchanged on the basis of the observation that the price fell because other people had unfavorable information regarding the security's payoff.²⁴³

In other words, demand curves for securities—as with some consumer goods—may not always be negatively sloped.²⁴⁴

Economists have focused on this signaling effect in the context of the secondary market.²⁴⁵ Theoretically, when traders with disparate information enter the market, the clearing price aggregates this information and conveys it to all.²⁴⁶ Uninformed investors logically interpret this clearing price as a reflection of the security's fundamental characteristics and make their investment decisions accordingly.²⁴⁷

the expected return is higher, and their demand may increase." (citations omitted)).

²⁴³ Sanford J. Grossman, *Rational Expectations and the Informational Role of Prices*, in MODERN BUSINESS CYCLE THEORY 128, 129 (Robert J. Barro ed., 1989).

²⁴⁴ See Stiglitz, *supra* note 218, at 3 ("[D]emand curves, may under quite plausible conditions, not be downward sloping. When the price of some security is higher, uninformed buyers may infer that the expected return is higher, and their demand may increase." (citations omitted)).

²⁴⁵ See, e.g., Grossman, *supra* note 243, at 134 (discussing the effect of price as information on traders).

²⁴⁶ See *id.* at 134 ("[I]f traders come to the market with different information, the price at which the market clears is itself a very important piece of information to each trader (in that it reveals the information of other traders)."); Roy Radner, *Rational Expectations Equilibrium: Generic Existence and the Information Revealed by Prices*, 47 ECONOMETRICA 655, 655 (1979) ("When traders come to a market with different information about the items to be traded, the resulting market prices may reveal to some traders something about the information available to other traders."); Jerry R. Green, *Information, Efficiency and Equilibrium 2* (Harvard Inst. of Econ. Research, Working Paper No. 284, 1973) ("People who do not engage in information gathering still can draw inferences about the true state by observing the equilibrium price system because this is influenced by the signals received by those people who have invested in this activity.").

²⁴⁷ See Grossman, *supra* note 243, at 130 ("It is a fact that the price at which the market clears conveys information. This means that rational traders will adjust their demand functions to reflect the fact that if the market clears at a price p , then this price tells them something about how much

iii. Research Supports the Conclusion that Investors Interpret Security's Offering Price as a Signal of Fundamental Value

This marketing research and economic theory support the conclusion that investors reasonably understand the issuer and underwriter as making an implicit representation that a security's offering price is rationally related to the security's fundamental value.²⁴⁸

First, the circumstances in which consumers interpret a product's price as a signal of fundamental characteristics are present in the sale of securities. Securities, even more so than wine and perfume, vary in fundamental characteristics, increasing purchasers' incentives to ferret out differentiating characteristics.²⁴⁹ And, just like consumers who are forced to make a purchase decision without full information, securities purchasers must make investment choices while at an informational disadvantage with the issuer and underwriter.²⁵⁰ Therefore, the very same forces that compel a consumer to interpret a product's price as a signal of fundamental characteristics are present when an investor purchases a security in a primary offering.

This marketing research has been applied beyond the field of consumer goods in other scenarios in which purchasers must make choices with incomplete information. For example, finance scholar Lily Hua Fang applied this research to an underwriter's proffer of its services:

[W]hen quality is unobservable, a premium price arises as a means of quality assurance because such a price ensures that the present value of future income is greater than the short-term profit from cutting quality and selling low quality goods at high quality prices. These theories on product prices are applicable to the underwriting market because this market satisfies the key assumption that quality is ex ante unobservable.²⁵¹

of the security they would want to hold.").

²⁴⁸ See *id.* (stating that rational traders will adjust their demand to reflect the information conveyed by the price).

²⁴⁹ See *supra* Part IV.A.3.a-b.ii.

²⁵⁰ See *supra* Part II.E.1.

²⁵¹ Fang, *supra* note 195, at 2731-32.

The quality of securities, just like the quality of underwriting services, is ex ante unobservable.²⁵²

Second, the logic underlying the informational role of securities prices in the secondary market also applies to their role in the primary market. Rational investors know that the offering price is chosen by the issuer and underwriter after an intrinsic valuation and a bookbuilding or negotiation process.²⁵³ Rationally, the offering price should reflect the security's fundamental characteristics and thus should convey information about fundamental value.²⁵⁴ Although most economists have not extended the theory of the informational role of prices to primary offerings, there are a few exceptions. For example, in a recent article, Fabrizio Adriani, Luca Deidda, and Silvia Sonderegger premised their analysis of the role of financial intermediaries in securities issues on the assumption that offering prices signal security quality:

[S]ignaling creates an upward pressure on the offering price that eventually causes market breakdown. Intuitively, good issuers tend to raise the offering price to differentiate themselves, while bad types raise the offering price to mimic good types. This signaling spiral only stops when the offering price is too high for trade to occur.²⁵⁵

c. The Relationship Between an Increase in Offering Price and Higher First-Day Returns Is Consistent with Investors' Interpreting Offering Price as a Signal of Fundamental Value

Financial research shows that, when a security's offering price is set above the original file price range, the security's first-day returns are

²⁵² See *id.*; *supra* Part IV.A.3.a-b.ii.

²⁵³ See *supra* Part II.E.1.

²⁵⁴ See *supra* Part II.E.1.

²⁵⁵ Fabrizio Adriani et al., *The Role of Financial Intermediaries in Securities Issues: A Theoretical Analysis* 3 (Munich Pers. RePEc Archive, Working Paper No. 16112, 2009), available at <http://mpra.ub.uni-muenchen.de/16112/index.html>; see also Fabrizio Adriani & Luca G. Deidda, *Competition and the Signaling Role of Prices* 33 (Ctr. for N.S. Econ. Research, Working Paper No. 12, 2010) ("Sellers may lower prices to undercut competitors or increase them to signal high quality.").

higher.²⁵⁶ Michael Adams, Barry Thornton, and Russ Baker, analyzing data compiled by finance scholar Jay Ritter, made the following findings:

Table 3 shows that this pattern has held throughout 1980–2001: When the offer price exceeds the maximum of the original file price range, the average IPO underpricing is significantly above average (53% instead of 3% for IPOs adjusting their offer price downward and 12% for IPOs priced within their filing range).²⁵⁷

Consistent with these findings, finance scholars Michelle Lowry and G. William Schwert found that a 10% higher price update corresponded to a 6.8% higher initial return.²⁵⁸

One explanation is that both of these circumstances—the higher offering price and the higher first-day returns—are symptoms of investors' over-optimism.²⁵⁹ In support of this explanation, finance scholars Andreas Oehler, Marco Rummer, and Peter N. Smith argue that "high pre-IPO prices, which indicate overly optimistic investors, are a good predictor of high initial returns during the first trading day."²⁶⁰ Under this explanation, there is not a causal connection between a higher offering price and higher first-day returns.²⁶¹

A second explanation is that the increase in offering price affects

²⁵⁶ See GEDDES, *supra* note 47, at 74 ("Interestingly, in situations where the price range has been revised upwards and the price has been set at the higher level, IPOs have a higher one-day premium than those that stay within the range, or price below the range . . ."); Daniel J. Bradley & Bradford D. Jordan, *Partial Adjustment to Public Information and IPO Underpricing*, 37 J. FIN. & QUANTITATIVE ANALYSIS 595, 615 (Dec. 2002) ("Issues in which the offer price is above the file range are generally much more underpriced."); Ritter & Welch, *supra* note 85, at 1805 ("[W]hen underwriters revise the share price upward from their original estimate in the preliminary prospectus, underpricing tends to be higher.").

²⁵⁷ Adams et al., *supra* note 129, at 58.

²⁵⁸ See Michelle Lowry & G. William Schwert, *Is the IPO Pricing Process Efficient?*, 71 J. FIN. ECON. 3, 22 (2004).

²⁵⁹ See Adams et al., *supra* note 129, at 58 ("Specifically, a high-demand IPO, which is due to investors' over optimism, is more likely to create a speculative bubble. The speculative bubble may temporarily push the stock price above its intrinsic value, followed by long-run price correction. As a result, a relatively high positive initial return will be followed by a negative long-run return.").

²⁶⁰ Oehler et al., *supra* note 132, at 127.

²⁶¹ See *id.* ("This approach argues that high and fluctuating initial returns are caused by demand from different groups of investors and are not induced by a required discount due to asymmetrically distributed information and ex-ante uncertainty.").

demand for the stock, causing the higher first-day returns.²⁶² Consistent with this explanation is the widely held view that setting an offering price above the original file range builds up investor demand by creating the appearance of a “hot” offering.²⁶³ Indeed, some people suspect that underwriters may intentionally set a low file range with the plan to increase demand by later revising the range.²⁶⁴

This second explanation would support the informational role of a security’s offering price. Under this explanation, investors interpret the higher offering price as an indication that the security’s fundamental value is higher than previously thought, thereby increasing demand for the security.²⁶⁵

d. Investors’ Interpretation of Offering Price as Rationally Related to Fundamental Value Is a Self-Fulfilling Prophecy

Finally, to the extent that courts were to recognize that an issuer and underwriter make an implicit representation that a security’s offering price is rationally related to the security’s fundamental value, reasonable investors—to the extent they were not already doing so—would so interpret the offering price of securities. This author has previously noted a comparable circular relationship between investors’ reliance on puffing statements and courts’ treatment of puffing statements as material:

A key assumption underlying the securities fraud materiality standard is that stock purchasers expect a company’s representatives to make puffing statements and thus lend them no credence. In other words, it is assumed that “reasonable” investors disregard some statements by corporate officers. Of course, this assumption is self-perpetuating. Presumably, one of the reasons that

²⁶² See Adams et al., *supra* note 130, at 71 (“The ultimate stock price, relative to the stated range, is hypothesized to influence the IPO’s short term performance.”).

²⁶³ See GEDDES, *supra* note 47, at 74 (“Bankers build up demand for the shares then increase the price range because of ‘substantial’ investor interest. The pricing momentum helps to create the appearance of a hot offering.”).

²⁶⁴ See Lowry & Schwert, *supra* note 258, at 11 (“[A]ccording to some people, investment bankers deliberately set the price range low during the 1990s, with the hope of generating momentum and thereby increasing demand for the offering.”).

²⁶⁵ See *supra* Part IV.A.3.a.

reasonable investors discount puffing statements is their understanding that these types of statements cannot support a securities fraud claim.

The use of a subjective materiality standard to prosecute corporate officers for wire or mail fraud may encourage investors to lend credence to vague statements of corporate optimism, undercutting the assumption that investors disregard puffery. Recognizing that corporate officers can face imprisonment for a false statement of corporate optimism, investors may begin to take every statement—even a puffing one—at face value.²⁶⁶

Under this same logic, if investors knew that issuers and underwriters faced potential securities fraud liability for setting an offering price that was not rationally related to the security's fundamental value, investors would interpret the offering price as containing an implicit representation to that effect.

4. Courts May Nonetheless Refuse to Recognize the Implicit Representation that the Offering Price Is Rationally Related to Fundamental Value

As explained above, courts have recognized the presence of implicit representations when there is an information imbalance and a reasonable understanding of the implicit representation, and both of these elements are arguably present when an issuer and an underwriter set the offering price of a security.²⁶⁷ Two additional barriers may prevent courts from recognizing that issuers and underwriters impliedly represent that the offering price is rationally related to fundamental value. First, some courts are reluctant to recognize additional implicit representations, even when there is an informational imbalance and the representation is reasonably understood. Second, courts may permit issuers and underwriters to disclaim the implied representation, and the business environment may not prevent the widespread use of such disclaimers.

²⁶⁶ Wendy Gerwick Couture, *White Collar Crime's Gray Area: The Anomaly of Criminalizing Conduct Not Civilly Actionable*, 72 ALB. L. REV. 1, 31 (2009).

²⁶⁷ See *supra* Part IV.A.1–3.

a. Some Courts Are Reluctant to Recognize Additional Implicit Representations

A number of circuit courts have refused to recognize other alleged implicit representations for purposes of securities fraud liability—even in circumstances involving an information imbalance and a reasonable understanding of the implicit representation. For example, in *SEC v. Tambone*, the First Circuit recently rejected the SEC's argument that underwriters, who have a duty to investigate the nature and circumstances of an offering, make an implied representation to investors that they have a reasonable basis for believing that the statements in the prospectus are true.²⁶⁸ Similarly, in *Lattanzio v. Deloitte & Touche LLP*, the Second Circuit rejected the plaintiff's argument that an accounting firm makes an implied representation that a firm's 10-Q's are accurate when the public understands that the firm is at work behind the scenes.²⁶⁹

The statements in both *Tambone* and *Lattanzio* are distinguishable from the implicit representation proposed in this article because each represented an attempt to blur the distinction between primary and secondary liability. The Supreme Court has repeatedly stated that primary securities fraud liability extends only to those parties who actually make the false misrepresentations on which investors rely.²⁷⁰ In *Tambone*, the issuer made the allegedly false statements in the prospectus, and the SEC attempted to use an implicit representation by the underwriter to make the underwriter primarily liable for those statements.²⁷¹ Similarly, in *Lattanzio*, the issuer made the allegedly false statements in the 10-Q's, and the plaintiff attempted to use an implicit representation by the accounting firm to make the accounting firm primarily liable for those statements.²⁷² By contrast, the recognition of the implicit representation underlying the setting of the

²⁶⁸ 597 F.3d 436, 447–48 (1st Cir. 2010) (en banc).

²⁶⁹ 476 F.3d 147, 155 (2d Cir. 2007).

²⁷⁰ See *Stoneridge Inv. Partners, LLC v. Scientific-Atlanta, Inc.*, 552 U.S. 148, 161 (2008) (“In all events we conclude respondents’ deceptive acts, which were not disclosed to the investing public, are too remote to satisfy the requirement of reliance. It was Charter, not respondents, that misled its auditor and filed fraudulent financial statements; nothing respondents did made it necessary or inevitable for Charter to record the transactions as it did.”); *Cent. Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A.*, 511 U.S. 164, 180 (1994) (“Were we to allow the aiding and abetting action proposed in this case, the defendant could be liable without any showing that the plaintiff relied upon the aider and abettor’s statements or actions.”).

²⁷¹ *Tambone*, 597 F.3d at 438–40.

²⁷² *Lattanzio*, 476 F.3d at 154–55.

offering price is not an attempt to blur the primary-secondary liability distinction. Therefore, this implicit representation does not invoke the host of policy reasons for limiting primary liability to primary actors.²⁷³

Moreover, other courts have been more willing to recognize implicit representations when there is an information imbalance and the representation is reasonably understood.²⁷⁴ For example, in *Sanders v. John Nuveen & Co.*, the Seventh Circuit recognized that an underwriter, by participating in the sale of an issue, makes an implied representation to investors that it has met the standards of its profession in investigating the issuer.²⁷⁵ In reaching this ruling, the court noted the existence of an information imbalance between the underwriter and investors: "An underwriter's relationship with the issuer gives the underwriter access to facts that are not equally available to members of the public who must rely on published information."²⁷⁶ Moreover, the court recognized that investors reasonably understand underwriters as making this implicit representation: "And the relationship between the underwriter and its customers implicitly involves a favorable recommendation of the issued security."²⁷⁷

Similarly, in *Chris-Craft Industries, Inc. v. Piper Aircraft Corp.*, the Second Circuit recognized that an underwriter, by participating in a tender offer, makes an implicit representation that statements in the registration materials are correct.²⁷⁸ The court noted that an underwriter has unique access to information about the company, including "ready access to the books and records," and that investors reasonably understand the

²⁷³ See, e.g., *Stoneridge*, 552 U.S. at 161 ("Were the implied cause of action to be extended to the practices described here, however, there would be a risk that the federal power would be used to invite litigation beyond the immediate sphere of securities litigation and in areas already governed by functioning and effective state-law guarantees."); *Cent. Bank*, 511 U.S. at 189 ("This uncertainty and excessive litigation can have ripple effects. For example, newer and smaller companies may find it difficult to obtain advice from professionals. A professional may fear that a newer or smaller company may not survive and that business failure would generate securities litigation against the professional, among others. In addition, the increased costs incurred by professionals because of the litigation and settlement costs under 10b-5 may be passed on to their client companies, and in turn incurred by the company's investors, the intended beneficiaries of the statute.").

²⁷⁴ See, e.g., *Sanders v. John Nuveen & Co.*, 524 F.2d 1064, 1070 (7th Cir. 1975), vacated and remanded on other grounds, 425 U.S. 929, 929-30 (1976).

²⁷⁵ *Id.*

²⁷⁶ *Id.* at 1069-70.

²⁷⁷ *Id.* at 1070.

²⁷⁸ See 480 F.2d 341, 370 (2d Cir. 1973).

underwriter as implicitly representing its agreement with the statements in the registration materials: “Prospective investors look to the underwriter—a fact well known to all concerned and especially to the underwriter—to pass on the soundness of the security and the correctness of the registration statement and prospectus.”²⁷⁹

b. Courts May Permit Issuers and Underwriters to Disclaim the Implied Representation

Sometimes, implied representations can effectively be disclaimed.²⁸⁰ As a consequence, issuers and underwriters might attempt to avoid price-fraud liability by expressly stating in the offering materials that the offering price is not rationally related to the security’s fundamental value.

Courts have not analyzed the express disclaimer of implied representations in the securities fraud context. This issue has likely not arisen because business realities make express disclaimers of most implied representations unworkable. For example, a CEO is unlikely to accompany his or her prediction about the company’s future performance with an express statement that the prediction lacks a reasonable basis.

Perhaps business realities would similarly prevent issuers and underwriters from expressly disclaiming that the offering price bears a rational relationship with the security’s fundamental value. If investors interpreted this disclaimer as an indication that the issuer and underwriter viewed the offering price to be irrationally high, issuers and underwriters would likely prefer to price to fundamentals rather than risk a failed offering.²⁸¹ If, however, investors viewed the disclaimer as a mere boilerplate warning compelled by the lawyers, this disclaimer could undercut the bubble-quelling effects of price-fraud liability.²⁸²

In that case, perhaps courts would conclude that the implied representation underlying the offering price cannot be disclaimed. For example, in the analogous context of promissory fraud, some authority exists that a promise carries with it two non-disclaimable implied representations: (1) that the promisor intends to perform the promise,²⁸³ and (2) that the promisor does not intend not to perform the promise.²⁸⁴

²⁷⁹ *Id.* at 369–70.

²⁸⁰ See 37 AM. JUR. 2D *Fraud & Deceit* § 312 (2001 & Supp. 2010).

²⁸¹ See *supra* Parts II.E, IV.A.

²⁸² See *supra* Parts II.E, IV.A.

²⁸³ RESTATEMENT (SECOND) OF TORTS § 530 cmt. c (1977) (“Since a promise necessarily

B. The Remaining Elements of Securities Fraud Would Be Satisfied in Some Circumstances

As articulated above, the main sticking point in asserting a securities fraud claim against issuers and underwriters who price securities above their intrinsic value is the identification of a misrepresentation.²⁸⁵ If, as argued above, issuers and underwriters make an implicit representation that the offering price is rationally related to the security's fundamental value, then the overpricing of securities would potentially be actionable as securities fraud if the remaining elements of the claim were satisfied. This section briefly analyzes the remaining elements of a securities fraud claim, recognizing the potential for these elements to be contested but ultimately concluding that they would be satisfied in the most egregious circumstances. In particular, this section analyzes the elements of (1) falsity; (2) scienter; (3) materiality; (4) reliance; and (5) loss causation.

1. The Falsity Element Could Be Satisfied in Some Circumstances

In order for an explicit or implicit representation to be actionable as securities fraud, it must be false or misleading.²⁸⁶ When a representation is incapable of being categorized as true or false, it cannot form the basis of a securities fraud claim.²⁸⁷ For example, as explained by the Sixth Circuit, "[S]tatements describing a product in terms of 'quality' or 'best' or benefitting from 'aggressive marketing' are too squishy, too untethered to

carries with it the implied assertion of an intention to perform it follows that a promise made without such an intention is fraudulent and actionable in deceit . . ."); *but see* Ian Ayres & Gregory Klass, *New Rules for Promissory Fraud*, 48 ARIZ. L. REV. 957, 958 (2006) ("This mandatory rule should be instead a default. A promisor could then disclaim the representation of intent to perform.").

²⁸⁴ Ayres & Klass, *supra* note 283, at 958–59 ("Courts should, however, retain one mandatory rule: While some promises do not represent an intent to perform, every promise represents at least that the promisor does not intend not to perform—that is, she is not entering the contract planning breach.").

²⁸⁵ *See supra* Part IV.A.

²⁸⁶ *See Silver v. H&R Block, Inc.*, 105 F.3d 394, 396 (8th Cir. 1997) ("To prevail on his securities fraud claims, Silver must show, among other things, that H & R Block made materially misleading statements or omissions.").

²⁸⁷ *See City of Monroe Emp. Ret. Sys. v. Bridgestone Corp.*, 399 F.3d 651, 671 (6th Cir. 2005).

anything measurable”²⁸⁸ Similarly, the Seventh Circuit held that “describing a company as ‘recession-resistant’ lacks the requisite specificity to be considered anything but optimistic rhetoric.”²⁸⁹

Fundamental analysis of securities is inherently imprecise. In fact, it has been characterized as “an art, not a science.”²⁹⁰ Economists Owen A. Lamont & Richard H. Thaler humorously explained the difficulty of determining the right price of a security:

One of us used to have a colleague who, when teaching the basic finance course to impressionable young first-year master of business administration students, would shout the name of a well-known game show as a key conclusion of efficient markets: The Price is Right! He would offer little empirical support for this claim, but could rest assured that it was a claim that was hard to disprove.²⁹¹

The fundamental value of a security cannot be reduced to a specific number. Rather, security analysis is used to identify a range of values that are supported by the fundamentals and reasonable assumptions.²⁹² This range can be used to identify securities that are overpriced, even if the specific correct price cannot be identified with certainty. The imprecision of security analysis is exacerbated in the context of new securities issues, where the companies lack lengthy earning history and other indicators of fundamental value.²⁹³ As a consequence, minor differences between the

²⁸⁸ *Id.*

²⁸⁹ *Searls v. Glasser*, 64 F.3d 1061, 1066 (7th Cir. 1995).

²⁹⁰ Klarman, *supra* note 2, at xviii (“[V]aluation is an art, not a science.”).

²⁹¹ Lamont & Thaler, *supra* note 26, at 264–65.

²⁹² Klarman, *supra* note 2, at xviii (“[V]aluation is an art, not a science. Because the value of a business depends on numerous variables, it can typically be assessed only within a range.”); Lowenstein, *supra* note 47, at 48 (“Given the practical limits of people’s ability to forecast (an earnings report, a romance, the weather, or anything), the authors urge that investors think in terms of a range of values.”); *see also In re Salomon Analyst Level 3 Litig.*, 350 F. Supp. 2d 477, 485 (S.D.N.Y. 2004) (“Constructing a DCF model requires the analyst to make a number of judgment calls about a company’s financial prospects and the likely future growth and profit potential of its industry, as well as growth rates for the economy as a whole, including financial and credit markets.”).

²⁹³ Adams et al., *supra* note 130, at 71 (“It is very difficult to determine the appropriate price for an IPO. There is no recordable market price before issuing the stock. Most of the time, issuing companies do not have much operating history.”); Kim & Ritter, *supra* note 115, at 412 (“The DCF approach is based on a firmer theoretical footing than any other approach, but in many

offering price of a security and the range of values supported by the fundamentals and reasonable assumptions would not support a finding of falsity.

If, however, the offering price diverges widely from the range of values supported by the fundamentals, a factfinder could rationally conclude that the implicit representation was false. Moreover, factfinders are often asked to determine the fundamental value of securities in other contexts that are equally as complicated, such as cases in which plaintiff investors contend that an analyst's research reports about a company's fundamental value were without a reasonable basis,²⁹⁴ cases in which minority shareholders contend that directors made false statements about the fairness of a proposed merger price,²⁹⁵ cases in which shareholders assert appraisal rights,²⁹⁶ and cases in which company executives are charged with misstating the "value" of a company's stock.²⁹⁷

situations it is difficult to estimate future cash flows and an appropriate discount rate."); Ritter & Welch, *supra* note 85, at 1816 ("[A]ccounting data are in many cases too unreliable a measure of valuation to facilitate powerful tests, especially because many firms going public are being valued on the basis of their growth options, not their historical financials. As a result, the power of tests to explain pricing relative to some 'true fundamental value' is too low to make much headway in testing whether IPO pricing or after-market valuation better reflects the IPOs' fundamental valuations unless the sample is large."); Stout, *supra* note 28, at 654-55 ("The rational underwriter pricing an initial public offering must judge the offering on its own merits, and cannot set the offering price of a speculative new firm based on the price at which IBM is currently trading. These observations explain why underwriters find it much more difficult to price equity than debt, and why unseasoned equity is the most notoriously difficult to price of all securities.").

²⁹⁴ See, e.g., *In re Salomon Analyst*, 350 F. Supp. 2d at 481-82 ("[As alleged by the plaintiff investors], [e]xecutives in the research division criticized the 'excessive optimism' that had led to ever-higher target prices for some stocks and notes the 'failures of analysis,' particularly in the assumption underlying financial projections, that allowed the boosterism to continue.").

²⁹⁵ See, e.g., *Va. Bankshares, Inc. v. Sandberg*, 501 U.S. 1083, 1094 (1991) ("In this case, whether \$42 was "high," and the proposal "fair" to the minority shareholders, depended on whether provable facts about the Bank's assets, and about actual and potential levels of operation, substantiated a value that was above, below, or more or less at the \$42 figure, when assessed in accordance with recognized methods of valuation.").

²⁹⁶ See, e.g., *Weinberger v. UOP, Inc.*, 457 A.2d 701, 711 (Del. 1983) ("[Price] fairness relates to the economic and financial considerations of the proposed merger, including all relevant factors: assets, market value, earnings, future prospects, and any other elements that affect the intrinsic or inherent value of a company's stock.").

²⁹⁷ See, e.g., *Superseding Indictment at 28, United States v. Causey*, Cr. No. H-04-25 (S.D. Tex. Jul. 7, 2004) ("[Skilling] asserted that Enron's stock, which was then trading at over \$80 per share, should be valued at \$126 per share, attributing \$63 of that alleged stock value to EBS and EES. . . . As Skilling also knew, EES too was a struggling business."); Transcript of Closing

2. The Scienter Element Could Be Met in Some Circumstances

Ordinarily, the scienter element is satisfied if a misrepresentation is made either intentionally or with recklessness as to truth or falsity.²⁹⁸ Applied in a straightforward manner to price fraud, an issuer or underwriter would satisfy the scienter element if it knew that the offering price was not rationally related to the security's fundamental value or was reckless about that relationship.²⁹⁹ This would be satisfied in those scenarios discussed above in which an issuer and underwriter intentionally take advantage of a bubble market to issue overpriced securities.³⁰⁰ As discussed below, however, it is possible that the applicable mental state would be actual knowledge of falsity, as opposed to mere recklessness.

First, the scienter element might be subjected to a more nuanced analysis if the court determines that the issuer's and underwriter's implicit representation about the rational relationship between the offering price and fundamental value is properly characterized as an opinion.³⁰¹ In light of the inherent uncertainty associated with security analysis, some courts have characterized statements about fundamental value to be statements of "opinion" rather than "fact."³⁰² As a consequence, courts may characterize

Argument at 11:16:16–11:16:38, *United States v. Skilling*, No. Crim. H-04-025 ("Mr. Koenig tells Mr. Lay and Mr. Skilling and the board his best guess is that the retail business is worth \$15 a share. . . . Mr. Skilling at an analysts conference tells the investors that he projects that, by the end of 2001, retail will be worth \$23 a share.").

²⁹⁸ THOMAS LEE HAZEN, *TREATISE ON THE LAW OF SECURITIES REGULATION* § 12.8[3] (6th ed. 2009) ("It is clear that the scienter requirement is satisfied by a showing of intentional misrepresentation made with the intent to deceive. . . . While the recklessness question remains unsettled at the Supreme Court level, the vast majority of the circuit and district court decisions have found that recklessness is sufficient to state a claim under 10b-5.").

²⁹⁹ *See id.*; *see supra* Parts II.E, IV.A.3.a–b.

³⁰⁰ *See supra* Part II.E.

³⁰¹ *See In re Salomon Analyst Level 3 Litig.*, 350 F. Supp. 2d 477, 489 (S.D.N.Y. 2004).

³⁰² *See In re Salomon Analyst Level 3 Litig.*, 373 F. Supp. 2d 248, 251–52 (S.D.N.Y. 2005) ("[T]he court rejects plaintiffs' characterization of valuation models as 'fact' rather than 'opinion.' 'Facts' about a company include data like amount of sales in a past quarter or the firm's market capitalization on a given date . . . or events like an executive's promotion to CEO or the acquisition of a competitor. In contrast to these objective statements, financial valuation models depend so heavily on the discretionary choices of the modeler—including choice of method (e.g., discounted cash flow vs. market-based methods), choice of assumptions (such as the proper discount rate or cost of capital for a particular firm or industry), and choice of 'comparables' that the resulting models and their predictions can only fairly be characterized as subjective opinions.").

the implicit representation underlying a price-fraud action as an opinion that the offering price is rationally related to fundamental value.³⁰³

In order for an opinion to be false, it must be both objectively and subjectively false.³⁰⁴ In other words, the opinion must lack a reasonable basis, and the speaker must not truly hold the opinion stated.³⁰⁵ An opinion is not subjectively false if the speaker is merely reckless about its truth or falsity.³⁰⁶ Rather, an opinion is only subjectively false if the speaker disbelieves the opinion at the time of stating it—in other words, the speaker must know that the expressed opinion is false in order for it to be subjectively false.³⁰⁷ As a consequence, the falsity and scienter elements converge when an opinion is the basis of a securities fraud claim,³⁰⁸ effectively raising the scienter level to knowledge. If the implicit representation that the offering price is rationally related to fundamental value is characterized as an opinion, then the issuer and underwriter will be liable only if they knew that the price was not rationally related to the fundamental value of the security.³⁰⁹

Second, the scienter analysis might be subject to the stricter actual knowledge requirement if the implicit representation that the offering price is rationally related to the security's fundamental value is characterized as a prediction and if the price-fraud theory is applied to follow-up offerings by issuers. As explained above, a calculation of a security's fundamental value

³⁰³ See *id.*

³⁰⁴ See *In re Salomon Analyst*, 350 F. Supp. 2d at 489 (“[T]o survive a motion to dismiss on a false statement of opinion claim, a plaintiff must allege with particularity provable facts to demonstrate that the statement of opinion is both objectively and subjectively false. It is not sufficient for these purposes to allege that an opinion was unreasonable, irrational, excessively optimistic, not borne out by subsequent events, or any other characterization that relies on hindsight or falls short of an identifiable gap between the opinion publicly expressed and the opinion truly held.” (citations omitted) (internal quotation marks omitted)); *id.* at 492 (“Even if one credits the plaintiffs’ view that Grubman was excessively optimistic, merely being the most blotto of all the drunken sailors on shore leave does not amount to securities fraud.”).

³⁰⁵ See HAZEN, *supra* note 298, § 12.8[3].

³⁰⁶ *In re Salomon Analyst*, 350 F. Supp. 2d at 492.

³⁰⁷ See HAZEN, *supra* note 298, § 12.8[3].

³⁰⁸ Ian Ayres & Gregory Klass, *Promissory Fraud*, 78 N.Y. ST. B.J. 26, 28–29 (2006) (noting a similar convergence between the falsity and scienter elements in the context of promissory fraud) (“Courts reason that a promisor cannot be mistaken about his or her own intent. Thus, if a defendant didn’t intend to perform [thus rendering his implied representation of the intent to perform false], the misrepresentation must have been a knowing one, and hence there is no need for separate proof of scienter.”).

³⁰⁹ See *supra* notes 304–08 and accompanying text.

incorporates predictions about future cash flows and opinions about reasonable assumptions.³¹⁰ Therefore, courts might characterize this implicit representation as a forward-looking statement.³¹¹ Under the Private Securities Litigation Reform Act, a forward-looking statement, to the extent it is not made in connection with an initial public offering,³¹² is only actionable if made with “actual knowledge by that person that the statement was false or misleading.”³¹³

Although characterizing the implicit representation as an opinion or as a forward-looking statement would limit the imposition of securities fraud liability, it would not extinguish it. Issuers and underwriters who knowingly profit from an overly exuberant market would nonetheless possess the requisite mental state to invoke liability.

3. The Materiality Element Could Be Met in Some Circumstances

A misrepresentation is material if a reasonable investor would, in substantial likelihood, find it important in making an investment decision.³¹⁴ Undoubtedly, a reasonable investor would find the issuer’s and underwriter’s assessments of a security’s fundamental value to be significant in making an investment decision.³¹⁵ Indeed, this is supported by the extensive research showing that investors interpret corporate behavior as signals of firm value, including the decision to issue equity and the choice of underwriter.³¹⁶

One interesting nuance to the materiality element is the applicability of the bespeaks-caution doctrine and the safe harbor for forward-looking statements. Under the bespeaks-caution doctrine, “soft” information, such as opinions and predictions, can be rendered immaterial if accompanied by cautionary statements that are “substantive and tailored to the specific future projections, estimates or opinions in the prospectus which the

³¹⁰ See *supra* Part II.A.2.

³¹¹ See 15 U.S.C. § 78u-5(b)–(c) (2006); *supra* Part II.A.2.

³¹² 15 U.S.C. § 78u-5(b)(2)(D) (excluding forward-looking statements made “in connection with an initial public offering” from the safe harbor).

³¹³ *Id.* 15 U.S.C. § 78u-5(c)(1).

³¹⁴ See *Basic, Inc. v. Levinson*, 485 U.S. 224, 231 (1988); *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 449 (1976).

³¹⁵ See *supra* Part II.E.

³¹⁶ See *supra* Parts II.E, IV.A.

plaintiffs challenge.”³¹⁷ Similarly, under the Private Securities Litigation Reform Act, forward-looking statements accompanied by appropriate cautionary statements are rendered inactionable as a matter of law.³¹⁸

As explained above, a calculation of a security’s fundamental value incorporates predictions about future cash flows and opinions about reasonable assumptions. To the extent that these components of the analysis render the implicit representation sufficiently soft, issuers and underwriters might be able to protect themselves from liability by including detailed cautionary language about the fundamental value of the security in the registration statement.

4. The Element of Reliance Could Be Met in Some Circumstances

In order to prevail on a securities fraud claim, a plaintiff must show that he or she relied on the defendant’s alleged misrepresentation.³¹⁹ As explained by the Supreme Court, “Reliance provides the requisite causal connection between a defendant’s misrepresentation and a plaintiff’s injury.”³²⁰ Under the fraud-on-the-market presumption of reliance, investors’ reliance on materially misleading statements may be presumed—thus allowing for class certification—when the misrepresentations are disseminated into “an impersonal, well-developed market for securities.”³²¹ In essence, by purchasing or selling securities at the efficient market price, investors presumably rely on the publicly disseminated information that is reflected in that price.³²²

³¹⁷ See *Kaufman v. Trump’s Castle Funding (In re Donald J. Trump Casino Sec. Litig.—Taj Mahal Litig.)*, 7 F.3d 357, 371–72 (3d Cir. 1993).

³¹⁸ 15 U.S.C. § 78u-5(c)(1) (“Except as provided in subsection (b) of this section, in any private action arising under this chapter that is based on an untrue statement of a material fact or omission of a material fact necessary to make the statement not misleading, a person referred to in subsection (a) of this section shall not be liable with respect to any forward-looking statement, whether written or oral, if and to the extent that the forward-looking statement is identified as a forward-looking statement, and is accompanied by meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statement . . .”).

³¹⁹ See *Stoneridge Inv. Partners, LLC v. Scientific-Atlanta, Inc.*, 552 U.S. 148, 159 (2008) (“Reliance by the plaintiff upon the defendant’s deceptive acts is an essential element of the § 10(b) private cause of action.”).

³²⁰ *Basic Inc. v. Levinson*, 485 U.S. 224, 243 (1988).

³²¹ *Id.* at 247.

³²² See *id.* (“An investor who buys or sells stock at the price set by the market does so in

As applied to the price-fraud theory, a purchaser of a security in a primary offering would have to demonstrate that he or she relied on the issuer's and underwriter's implicit representation that the offering price was rationally related to the security's fundamental value. Potentially, in order to meet this burden, purchasers could rely on a presumptive theory of reliance similar to the fraud-on-the-market presumption.³²³ Just as publicly disseminated misrepresentations are incorporated into the market price under the fraud-on-the-market presumption of reliance, the implicit representation that the offering price is rationally related to fundamental value is incorporated into the offering price under the price-fraud theory. Arguably, by purchasing securities at the offering price, investors are relying on the implicit representation accompanying that price.

If the price-fraud theory were applied to investors in the secondary market,³²⁴ investors could establish individualized reliance by showing that they knew the offering price and relied on its rational relationship with fundamental value when making the decision to purchase the security. In addition, the fraud-on-the-market presumption of reliance could potentially be available to investors in the secondary market because the offering price, as well as the accompanying implied representation about its rational relationship with fundamental value, is widely disseminated.³²⁵ The price-fraud theory—despite its premise that the market price sometimes diverges from fundamental value—is not inconsistent with the fraud-on-the-market presumption of reliance, which is premised on informational efficiency rather than fundamental value efficiency.³²⁶

reliance on the integrity of that price. Because most publicly available information is reflected in market price, an investor's reliance on any public material misrepresentations, therefore, may be presumed for purposes of a Rule 10b-5 action.”).

³²³ The fraud-on-the-market theory itself is not available to initial public offerings. See *Gruber v. Price Waterhouse*, 776 F. Supp. 1044, 1052 (1991) (holding that the fraud on the market theory of reliance cannot apply to initial public offerings because there is not an “open and developed market”).

³²⁴ See *infra* Part IV.B.6.

³²⁵ See *Stuebler v. Xcelera.com (In re Xcelera.com Sec. Litig.)*, 430 F.3d 503, 510 (1st Cir. 2005).

³²⁶ See *id.* (“[T]he fraud-on-the-market presumption of reliance does not depend on the accuracy of the market price Rather, this presumption depends on whether the market price of the stock reflects all available information, such that an investor can be deemed to have indirectly relied on the misrepresentation. Whether the stock was ‘worth’ more or less in some fundamental value sense, while arguable relevant to the efficiency inquiry, is not essential to it.”).

5. The Element of Loss Causation Could Be Met in Some Circumstances

Finally, in order to prevail on a securities fraud claim, a plaintiff must establish loss causation. In essence, “[a] private plaintiff who claims securities fraud must prove that the defendant’s fraud caused an economic loss.”³²⁷

In a quintessential securities fraud case, absent intervening causes,³²⁸ an investor can establish loss causation by showing that the stock price decreased after the truth was revealed to the market.³²⁹ Similarly, in a price-fraud case, an investor can show loss causation by demonstrating that the stock price dropped when the truth hit the market that the offering price was not rationally related to the security’s intrinsic value. The truth could be revealed in two forms: (1) a market bubble could burst that causes the prices of all of the overvalued securities within a sector to plummet; or (2) firm-specific information could be disclosed that reveals the discrepancy between the offering price and intrinsic value.³³⁰ Either way, this later correction of the discrepancy between the offering price and fundamental value would arguably constitute an economic loss caused by the fraud.³³¹

³²⁷ *Dura Pharms., Inc. v. Broudo*, 544 U.S. 336, 338 (2005) (referencing 15 U.S.C. § 78u-4(b)(4)).

³²⁸ See Jill E. Fisch, *Cause for Concern: Causation and Federal Securities Fraud*, 94 IOWA L. REV. 811, 841 (2008) (recognizing that “it is necessary to account for the multiple factors other than the defendant’s fraud that may have an effect on stock price.”).

³²⁹ See *id.* at 825 (noting that “the loss causation analysis in most cases has focused on both the identification of an adequate corrective disclosure and expert testimony tying that corrective disclosure to a drop in stock price.”); Matthew L. Fry, *Pleading and Proving Loss Causation in Fraud-On-The-Market-Based Securities Suits Post-Dura Pharmaceuticals*, 36 SEC. REG. L.J. 31, 31 (2008) (“[T]he Court is requiring that the defendant’s fraud caused the plaintiffs’ economic loss, and in order to prove this connection, plaintiffs must prove that it was the revelation of the fraud to the market that in fact caused a decline in the value of the plaintiffs’ investment.”).

³³⁰ See Patrick J. Coughlin et al., *What’s Brewing in Dura v. Broudo? The Plaintiffs’ Attorneys Review the Supreme Court’s Opinion and Its Import for Securities-Fraud Litigation*, 37 LOY. U. CHI. L.J. 1, 15 (2005) (noting that the Supreme Court in *Dura* “seemed to recognize that fraud-induced inflation could be removed in any number of ways in addition to a corrective disclosure”).

³³¹ See, e.g., *DeMarco v. Robertson Stephens, Inc.*, 318 F. Supp. 2d 110, 123 (S.D.N.Y. 2004) (holding that the plaintiffs had properly alleged loss causation where research analysts allegedly misrepresented their true opinions about a stock in order to inflate a bubble and the investors lost money when the bubble burst) (“[T]he publication of the intentionally false opinions that allegedly distorted the market price of Corvis stock contained the seeds of loss causation. Unless an intervening event were to occur first, the author of the false opinion will be appropriately held

6. Several Issues Remain Unresolved

This article does not resolve three issues: (1) whether the price-fraud theory applies to unregistered offerings; (2) whether the price-fraud theory applies to second offerings by the issuer; and (3) whether the price-fraud theory applies to purchasers in the secondary market. Each of these issues is discussed briefly below, leaving these questions open for future debate.

First, with respect to unregistered offerings, the normative rationale for price-fraud liability is less compelling. Privately placed securities are ordinarily subject to resale restrictions and are not actively traded.³³² As a consequence, they are not as prone to bubble markets, and there is less incentive for speculators to try to ride a growing bubble. In addition, the prerequisites for recognition of an implied representation about offering price are less likely to be present. For one, in private transactions, investors often have access to in-depth information about issuers, lessening the information imbalance.³³³ In addition, because prices are often negotiated at arm's length between issuers and investors, investors are less likely to interpret the offering price as impliedly representing fundamental value.³³⁴

Similarly, with respect to follow-up offerings by issuers, investors are less likely to reasonably understand the offering price as impliedly representing fundamental value.³³⁵ Ordinarily, second offerings of publicly traded securities are sold at market price, without the issuer's or underwriter's exercising any discretion on pricing.³³⁶ As a consequence, it is less likely that the prerequisites for recognizing the existence of an implied representation would be satisfied.³³⁷

responsible when the market eventually corrects the artificially inflated price by bursting the bubble.”).

³³² See, e.g., 17 C.F.R. §§ 230.502, .505–.506 (explaining that securities offered under Rule 505 and 506 exemptions from registration have limitations on resale).

³³³ See, e.g., *SEC v. Ralston Purina Co.*, 346 U.S. 119, 125 (1953) (explaining that the transactional exemption under 15 U.S.C. § 77d(2) is available for offerings to “those who are shown to be able to fend for themselves”).

³³⁴ See 1 JOSEPH W. BARTLETT, *EQUITY FINANCE: VENTURE CAPITAL, BUYOUTS, RESTRUCTURING & REORGANIZATIONS* § 8.5 (2d ed. 1995).

³³⁵ See HAZEN, *supra* note 298, § 3.2 & n.26; *supra* Part II.E.

³³⁶ See HAZEN, *supra* note 298, § 3.2 (“In the case of additional offerings of securities that are already publicly traded, the price ordinarily will be determined by the closing price on the day before the offering.”).

³³⁷ See *id.* § 3.2 & n.7 (explaining the SEC's criteria for determining reasonable investigation and reliance); *supra* Part IV.A.

Finally, a purchaser in the secondary market attempting to apply the price-fraud theory of liability would be subject to the perhaps insurmountable burden of showing that an implied representation, made at the time of the offering, was material and continued to affect the market price at the time of the purchase in the secondary market.³³⁸ As time passed and circumstances changed, the issuer's and underwriter's snapshot calculation of fundamental value at an earlier point in time would become less important to reasonable investors.³³⁹

V. PRICE FRAUD IS SIMILAR TO RECOGNIZED SECURITIES CLAIMS RELATED TO PRICING

The price-fraud theory explored in this article is novel, but it bears some relationship to other recognized securities theories related to pricing. A brief analysis of these other pricing theories puts the price-fraud theory in context and sheds some light on its application.

A. *The Price-Fraud Theory Is Similar to Claims Against Qualified Independent Underwriters for False Pricing Opinions*

Until recently, when the interests of an issuer and an underwriter were too closely aligned, the National Association of Securities Dealers (NASD)³⁴⁰ required a qualified independent underwriter (QIU) to provide a pricing opinion in the prospectus.³⁴¹ The pricing opinion certified that:

[T]he price at which an equity issue or the yield at which a debt issue is to be distributed to the public is established at a price no higher or yield no lower than that recommended by a qualified independent underwriter which shall also participate in the preparation of the registration statement and the prospectus, offering circular,

³³⁸ See HAZEN, *supra* note 298, § 3.2 ("In the case of additional offerings of securities that are already publicly traded, the price ordinarily will be determined by the closing price on the day before the offering."); *supra* Part IV.A.

³³⁹ See HAZEN, *supra* note 298, § 3.2 ("Circumstances may require post effective amendments to registration statements and the prospectus."); *supra* Parts II.E, IV.A.

³⁴⁰ In 2007, the NASD was consolidated into Financial Industry Regulatory Authority (FINRA). THEODORE S. LYNN ET AL., REAL ESTATE INVESTMENT TRUSTS § 12:17 (2009).

³⁴¹ Laby, *supra* note 107, at 433 ("NASD Conduct Rule 2720 requires a QIU to conduct its own due diligence and provide a pricing opinion when a conflict exists between an issuer and an underwriter participating in a distribution.").

or similar document and which shall exercise the usual standards of 'due diligence' in respect thereto³⁴²

To the extent that a QIU's pricing opinion in a prospectus were false, it could form the basis of a securities fraud claim.³⁴³ For example, in *Glassman v. Computervision Corp.*, the co-lead underwriter was affiliated with Computervision, and the prospectus accordingly stated that "the public offering price can be no higher than that recommended by a 'qualified independent underwriter' meeting certain standards."³⁴⁴ The plaintiffs alleged that, contrary to this representation, the underwriters failed to consider relevant facts in setting the price.³⁴⁵ Similarly, in *Feiner v. SS & C Technologies*, the plaintiff investors alleged that, contrary to the prospectus's statement that the QIU's "recommended price was the result of consideration of all the identified factors," the offering price "was 'solely' a function of what the market would bear."³⁴⁶

The price-fraud theory proposed in this article is remarkably similar to the QIU requirement. In effect, under the price-fraud theory, every issuer and underwriter provides an implicit pricing opinion.³⁴⁷ QIU pricing opinions are intended as an antidote to scenarios in which, because they are too close, the issuer and underwriter do not have the investing public's best interests in mind.³⁴⁸ By the same token, the price-fraud theory recognizes

³⁴² Self-Regulatory Organizations; Proposed Rule Change by National Association of Securities Dealers, Inc., Relating to Exemption From Pricing Requirement by Qualified Independent Underwriter Under Schedule E to the NASD By-Laws, 54 Fed. Reg. 33,996, 33,996 (proposed Aug. 17, 1989).

³⁴³ See, e.g., *Feiner v. SS & C Techs.*, 11 F. Supp. 2d 204, 210 (D. Conn. 1998) (denying a motion to dismiss a claim because if the prospectus's statement that the QIU's "recommended price was the result of consideration of all the identified factors" was untrue, it would be a misrepresentation).

³⁴⁴ 90 F.3d 617, 624 (1st Cir. 1996).

³⁴⁵ *Id.* at 629. The court dismissed the claim, holding that the plaintiffs failed to plead facts from which to infer that "the underwriters did not consider up-to-date information." *Id.* at 629 & n.15.

³⁴⁶ 11 F. Supp. 2d at 210. The court denied the defendants' motion to dismiss this claim because "[i]f true, the statement in the Prospectus concerning consideration of various other factors would be a misrepresentation." *Id.*

³⁴⁷ See Laby, *supra* note 107, at 433 ("An additional possible reform to help ensure that an underwriter acts in a fiduciary capacity with respect to customers is to require an issuer conducting a public offering to engage an independent outsider to superintend the offering, with a skeptical eye to ensuring the interests of investors.").

³⁴⁸ See *id.* ("QIUs are employed when an issuer and an underwriter are affiliated or when an

that, in a bubble market, the issuer and underwriter do not internalize the risk of contributing to the growing market bubble. The recognition of the implicit representation that the offering price is rationally related to the security's fundamental value is an effort to force issuers and underwriters to internalize this risk.³⁴⁹

Notably, the SEC recently approved an amended version of NASD Conduct Rule 2720 that omits the QIU pricing opinion.³⁵⁰ The staff of the Financial Industry Regulatory Authority explained that "they were unaware of instances where QIUs have made recommendations that were inconsistent with pricing decisions by the book-running lead manager or lead placement agent" and that "they believe QIU pricing opinions in at-the-market offerings are of little to no value."³⁵¹

B. The Price-Fraud Theory Is Similar to Prevailing Price Claims Against Broker-Dealers for Fraudulently High Mark-Ups of Securities

Investors who purchase securities at excessive mark-ups may assert so-called prevailing price claims against broker-dealers.³⁵² The SEC explains the prevailing price theory as follows:

The antifraud provisions of the federal securities laws proscribe deceptive pricing practices by broker-dealers. Charging retail customers excessive mark-ups without proper disclosure constitutes such a deceptive practice or scheme. The fact that a broker-dealer is acting in a principal capacity does not diminish its obligation to deal fairly with public customers. This duty of fair dealing includes the implied representation that the price a firm

underwriter is conducting a distribution of its own shares. Under these facts, the relationship between the issuer and the underwriter is too close; acting together, they may not have the best interests of the investing public in mind.").

³⁴⁹ See *supra* Part III.A.

³⁵⁰ See Order Approving Proposed Rule Change, as Modified by Amendment No. 1 Thereto, To Modernize and Simplify NASD Rule 2720, 74 Fed. Reg. 29,255 (June 19, 2009).

³⁵¹ *Id.* 74 Fed. Reg. at 29,257.

³⁵² See, e.g., *Banca Cremi, S.A. v. Alex. Brown & Sons, Inc.*, 132 F.3d 1017, 1034 (4th Cir. 1997) ("The SEC has brought administrative actions for fraud under 17 C.F.R. § 240.10b-5 against securities brokers who have allegedly charged excessive markups to their debt securities customers without disclosing the markups."); *SEC v. Pasternak*, 561 F. Supp. 2d 459, 500 (D.N.J. 2008) (explaining duty to disclose excessive markup).

charges bears a reasonable relationship to the prevailing market price.³⁵³

Prevailing price claims are similar to the price-fraud theory because they are premised on an implied representation about a price's reasonableness.³⁵⁴

Prevailing price claims differ from the price-fraud theory, however, in one major respect. Under prevailing price claims, the correct price that a broker-dealer should charge investors is the prevailing market price, not the fundamental value of the security.³⁵⁵ As a consequence, the prevailing price theory would not be available to investors who allege that issuers and underwriters set the offering price at a level that the market could bear but that was not rationally related to the security's fundamental value.

C. The Price-Fraud Theory Is Similar to Merit Review of Offering Price

The federal securities acts are premised on disclosure: as long as an issuer complies truthfully with its disclosure obligations, the issuer may register and sell its securities.³⁵⁶ In contrast, many state securities acts

³⁵³ Zero-Coupon Securities, 52 Fed. Reg. 15,575, 15,576 (Apr. 21, 1987) (footnotes omitted).

³⁵⁴ Bethel et al., *supra* note 8, at 32 ("Another interesting source of potential litigation in the context of CDO purchases are claims that the pricing of the CDO assets or interests therein was inflated relative to the assets' or interests' 'true' value. . . . A related legal basis for bringing a pricing claim is a long line of cases that have held that, absent adequate disclosure, when the price charged an investor bears no reasonable relation to the 'prevailing price' this operates as a fraud on purchasers.").

³⁵⁵ See 52 Fed. Reg. at 15,576 ("If a dealers price to a customer includes an excessive mark-up over the prevailing market price, then, absent proper disclosure, the dealer has violated section 10(b) of the Exchange Act, and Rule 10b-5 thereunder, and section 17(a) of the Securities Act of 1933" (footnotes omitted)); *id.* ("As a general matter, the best evidence of the prevailing market price for a broker-dealer who is not making a market in the security is that dealer's contemporaneous cost of acquiring a security."); *Banca Cremi*, 132 F.3d at 1034 ("A mark-up is excessive when it bears no reasonable relation to the prevailing market price." (quoting *Bank of Lexington & Trust Co. v. Vining-Sparks Sec., Inc.*, 959 F.2d 606, 613 (6th Cir. 1992))).

³⁵⁶ See Rutherford B. Campbell, Jr., *The Insidious Remnants of State Rules Respecting Capital Formation*, 78 WASH. U.L.Q. 407, 410 (2000) ("The 1933 Act, on the other hand, adopted a disclosure philosophy and thus subjected issuers to no review of the merits, quality, or price of their shares offered for sale. Once the issuer provided the disclosures mandated by the 1933 Act, it was free to sell its securities, no matter how poor the quality or how high the price of those securities." (footnote omitted)) [hereinafter Campbell, *Insidious Remnants*]; Rutherford B. Campbell, Jr., *An Open Attack on the Nonsense of Blue Sky Regulation*, 10 J. CORP. L. 553, 556-57 (1985) ("Under federal law, the purpose of registration is disclosure.") [hereinafter Campbell,

apply merit review standards.³⁵⁷ In merit review jurisdictions, a securities regulator can deny registration if the securities fail to meet the jurisdiction's merit standards.³⁵⁸

Merit standards vary, but a typical statute imposes a "fair, just, and equitable" standard.³⁵⁹ One component of the merit evaluation is the fairness of the offering price.³⁶⁰ Regulators assess the fairness of the offering price by examining the company's earnings history and the potential for future earnings, among other factors.³⁶¹

Open Attack]; Daniel J. Morrissey, *The Road Not Taken: Rethinking Securities Regulation and the Case for Federal Merit Review*, 44 U. RICH. L. REV. 647, 649 (2010) (recognizing that disclosure is the "underlying philosophy of the federal securities laws").

³⁵⁷ Paul G. Mahoney, *The Origins of the Blue-Sky Laws: A Test of Competing Hypotheses*, 46 J.L. & ECON. 229, 231 (2003) (explaining that the first blue-sky law, enacted in Kansas in 1911, afforded the banking commissioner discretion to reject an offering if it failed a "merit review"); Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *Report on State Merit Regulation of Securities Offerings*, 41 BUS. LAW. 785, 790 (1986) (explaining that some states have merit review, some are disclosure-only, and some are nonregulatory).

³⁵⁸ Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *supra* note 357, at 787 ("There is a general understanding that a merit regulator has the authority to deny registration to an offering on the ground that it is substantively unfair or presents excessive investment risk to the investor . . ."); Campbell, *Insidious Remnants*, *supra* note 356, at 410 ("Blue sky laws provided substantive standards to be met by issuers of securities and established a regulatory vetting process in which state regulators had to approve offerings as consistent with the substantive statutory standards before the issuer was allowed to sell its securities to the citizens of the particular state."); Campbell, *Open Attack*, *supra* note 356, at 563 ("Merit regulation generally empowers state securities commissioners to deny registration if the offering does not meet the substantive standards contained in the particular state's securities act.").

³⁵⁹ Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *supra* note 357, at 805 ("Many of the statutes that confer merit authority provide very broad grounds for the administrator's decision to deny, revoke, or suspend the effectiveness of a registration statement. A typical provision would authorize the administrator to take such action if he or she finds that the offering is not 'fair, just and equitable.'"); *see also* UNIF. SEC. ACT § 306(a)(7) (amended 2005), 7C U.L.A. 96 (Supp. 2010) (providing alternative merit standards).

³⁶⁰ Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *supra* note 357, at 811–12 (explaining that merit regulation often encompasses a review of the "fairness of the offering price"); Campbell, *Open Attack*, *supra* note 356, at 563 ("Some states apply merit criteria that focus on the price paid for stock by the new investors and, accordingly, will deny registration in the event the commissioner determines the price to the public is excessive or unfair.").

³⁶¹ Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *supra* note 357, at 811–12 (explaining that merit review of the offer price involves the price-earnings multiple, the potential for higher future earnings, and comparisons with similar securities that are publicly traded); Campbell, *Open Attack*, *supra* note 356, at 564 ("Some states will consider a

Some of the rationales for state merit review of offering price also underlie the price-fraud theory. Both are premised on the notions that issuers and underwriters have an incentive to overprice offerings if the market will bear it,³⁶² that markets will sometimes bear irrationally high prices,³⁶³ and that tempering this overpricing could help quell market bubbles.³⁶⁴ Indeed, just as this article proposes the price-fraud theory as a means of preventing future financial crises, Professor Daniel J. Morrissey has proposed imposing federal merit review as a means of preventing future financial crises.³⁶⁵

The price-fraud theory and merit review of offering price also share some similar criticisms. For one, both are premised on the debatable notion that a security has an ascertainable fair price.³⁶⁶ In addition, by lowering

price excessive if it is in excess of some predetermined multiple of the company's recent earnings. Other states determine the excessiveness by the dilution suffered by the new shareholders at the time of their investment." (footnote omitted)); Richard B. Tyler, *More About Blue Sky*, 39 WASH. & LEE L. REV. 899, 903 (1982) (explaining that merit review states will deny registration if "the proposed public offering price is too high in relation to the market price, if a market exists, or in relation to the issuer's earnings history, or other factors").

³⁶² See Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *supra* note 357, at 824 (summarizing the rationales for merit regulation of offering price) ("The underwriter has an incentive to charge as high a price as possible to maximize the value of its discount or commission and hence may not bargain very hard for a price fair to the public investor.").

³⁶³ See *id.* (summarizing the rationales for merit regulation of offering price) ("Another assumption is that public investors are induced to purchase at unfair prices by market forces beyond their control, such as hot-issue expectations Fairness to the investor, therefore, demands that the regulator adjust the offering price so that the security is more likely to be worth what the investor pays for it."); *id.* at 826 (summarizing the rationales for merit regulation of offering price) ("The merit response to this argument is straightforward: the market does not work well enough to ensure those results, at least for the kinds of issues subject to merit regulation, so administrative intervention is necessary."); Conrad G. Goodkind, *Blue Sky Law: Is There Merit in the Merit Requirements?*, 1976 WIS. L. REV. 79, 96 ("In order to bring new issue pricing into line with economic reality, 19 states have adopted some form of restriction on pricing.").

³⁶⁴ Goodkind, *supra* note 363, at 96 n.110 (recognizing that merit regulation of offering price might be "designed to bring the offering price into line for 'fad' industries or for issuers generally during highly speculative market periods").

³⁶⁵ Morrissey, *supra* note 356, at 650 (proposing that "a merit-based system of securities regulation replace the current disclosure-based laws"); *id.* at 683 ("Federal officials then could have prohibited the sale of securities because they were not based on 'sound principles' and their sale would endanger the public interest.").

³⁶⁶ Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *supra* note 357, at 824 (summarizing the rationales for merit regulation of offering price) ("This approach

offering prices below what the market will bear, both divert money away from the issuer to be scooped up by speculators in the secondary market.³⁶⁷

Several of the criticisms of merit review are not implicated by the price-fraud theory, however, suggesting that the price-fraud theory might be a more tenable solution than imposing federal merit review.³⁶⁸ First, merit review is widely criticized as unduly paternalistic.³⁶⁹ The primary rationale for merit review of offering price is to protect the public from paying unduly high prices for securities—in essence, merit review protects investors from themselves.³⁷⁰ The price-fraud theory, in contrast, is primarily motivated by the goal of forcing issuers and underwriters to bear the risk of financial collapse, thus preventing the growth of dangerous market bubbles.³⁷¹ The protection of overly exuberant investors is a side benefit of this proposal but not its primary aim.³⁷²

Second, merit review is often criticized for interposing an ill-equipped middleman between issuers and investors.³⁷³ As recognized by Professor

assumes that there is an objective, ascertainable investment value for securities that differs from the price investors will pay.”).

³⁶⁷ See Goodkind, *supra* note 363, at 98 (recognizing that, in a state that regulates offer price, “a great deal of capital which would otherwise have gone to the issuer will instead go into the pockets of speculators”); Jeffrey T. Haughey & Kevin M. Veler, *Blue Sky Laws and State Takeover Statutes: New Importance for an Old Battleground*, 7 J. CORP. L. 689, 713 (1982) (“This means that attractive issues, which normally go at a premium are sold at a lower price. Speculators can purchase shares below premium in the original market and can capture it in the secondary market. Consequently, the premium is lost to the issuer in the original market.”); Tyler, *supra* note 361, at 906 (“The opponents of merit regulation go on to argue that such restrictions actually contribute to the ‘hot issue’ problem which has occurred from time to time.” (footnote omitted)).

³⁶⁸ But see Morrissey, *supra* note 356, at 650 (proposing that “a merit-based system of securities regulation replace the current disclosure-based laws”).

³⁶⁹ See Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *supra* note 357, at 791 (characterizing some merit statutes as “highly paternalistic”); Campbell, *Insidious Remnants*, *supra* note 356, at 408 (characterizing merit regulation as “paternalistic”).

³⁷⁰ See Goodkind, *supra* note 363, at 98 (“In support of the offering price rules it is said that they are needed to protect the public from arbitrary overvaluation of issues for which no adequate market exists.”); Haughey & Veler, *supra* note 367, at 712–13 (“The justification for this interference with competitive pricing lies in notions of consumer protection. To protect investors from arbitrary overvaluation of issues without the existence of an adequate market, such interference is necessary since the public has little basis on which to gauge the value of the offering.”).

³⁷¹ See *supra* Part III.A.

³⁷² See *supra* Part III.A.

³⁷³ Ad Hoc Subcomm. on Merit Regulation of the State Regulation of Sec. Comm., *supra* note

Morrissey, a weakness in his argument for federal merit review is the Securities and Exchange Commission's ineffectiveness in its current role, much less in the expanded role of merit regulator.³⁷⁴ The price-fraud theory, unlike merit review, does not interpose an ineffective third party between the issuer and underwriter, on the one hand, and investors, on the other hand.³⁷⁵ Rather, issuers and underwriters—who themselves possess the most accurate information about the issuer's business fundamentals—are incentivized to ensure that the offering price bears a rational relationship to the securities' intrinsic value.³⁷⁶

Third, merit review is often maligned for preventing issuers from raising capital by denying them registration.³⁷⁷ As Professor Rutherford B. Campbell, Jr. succinctly explained: "[M]erit regulation unnecessarily constrains the freedom of people to do business as they see fit, discourages entrepreneurial initiative and impedes the flow of capital to its most efficient use."³⁷⁸ The price-fraud theory, on the other hand, does not bar issuers from access to capital. Rather, it merely forces them to bear the risk of overpricing.³⁷⁹

In sum, the price-fraud theory shares some rationales with merit review, while avoiding some of merit review's most troubling criticisms. The price-fraud theory could be seen as walking the middle ground between disclosure and merit review by incorporating into the disclosure framework the merit review concern with the fairness of the offering price.

357, at 839 ("At their current staff level, the state administrators cannot engage in fundamental analysis in any meaningful way. Examiners have neither the training nor the time to engage in fundamental analysis of the great number and variety of offerings that cross their desks.").

³⁷⁴ Morrissey, *supra* note 356, at 687 (recognizing that a criticism of federal merit regulation is "the current, sorry history of regulatory failure") ("Why should an agency be entrusted with that power when the SEC's recent failures to protect investors have been so glaring?").

³⁷⁵ See Goodkind, *supra* note 363, at 98 ("Review of the reasonableness of the offering price by the securities administrator interposes the judgment of a neutral party between the issuer and its investment banker on the one hand and the investing public on the other."); Haughey & Veler, *supra* note 367, at 808 ("This regulation imposes the state administrator's review of offering price between the issuer and the investor.").

³⁷⁶ See *supra* Parts III.A, IV.A.

³⁷⁷ Campbell, *Open Attack*, *supra* note 356, at 565.

³⁷⁸ *Id.*

³⁷⁹ See *supra* Part III.A.

D. The Price-Fraud Theory Bears Some Resemblance to the Fraud-Created-the-Market Theory of Reliance

Under the Fifth Circuit's controversial³⁸⁰ fraud-created-the-market theory of reliance, a plaintiff investor may establish the securities fraud element of reliance by demonstrating that "the existence of the security in the marketplace resulted from the successful perpetration of a fraud on the investment community."³⁸¹ In other words, a plaintiff who identifies misrepresentations in offering materials may establish the element of reliance by showing that, absent the misrepresentations, the securities would have been unmarketable. Rather than relying on the misrepresentations directly, the plaintiff relied on them indirectly by relying on the securities' marketability.³⁸² The Fifth Circuit explained: "The securities laws allow an investor to rely on the integrity of the market to the extent that the securities it offers to him for purchase are entitled to be in the marketplace."³⁸³ Under this theory, securities are unmarketable only if "they would not have been offered on the market at any price."³⁸⁴

The fraud-created-the-market theory is similar to the price-fraud theory in several respects. First, both theories rest on the premise that the integrity of the offering process itself signals information to investors about the securities' fundamental value. Under the fraud-created-the-market theory, the offering process signals to investors that the securities are not worthless.³⁸⁵ Under the price-fraud theory, the offering process signals to investors that the offering price bears a rational relationship to the security's

³⁸⁰ See, e.g., *Malack v. BDO Seidman, LLP*, 617 F.3d 743, 752–56 (3d Cir. 2010) (rejecting the fraud-created-the-market theory of reliance); *Eckstein v. Balcors Film Investors*, 8 F.3d 1121, 1130–31 (7th Cir. 1993) (rejecting the fraud-created-the-market theory of reliance and detailing the split in authority).

³⁸¹ *Shores v. Sklar*, 647 F.2d 462, 464 (5th Cir. May 1981) (en banc), *overruled on other grounds* by *Cent. Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A.*, 511 U.S. 164 (1994).

³⁸² See *Regents of the Univ. of Cal. v. Credit Suisse First Boston (USA), Inc.*, 482 F.3d 372, 391 (5th Cir. 2007) ("[A]ctors who introduced an otherwise unmarketable security into the market by means of fraud are deemed guilty of manipulation, and a plaintiff can plead that he relied on the integrity of the market rather than on individual fraudulent disclosures.").

³⁸³ *Shores*, 647 F.2d at 471.

³⁸⁴ *Id.* at 464 n.2.

³⁸⁵ See *Abell v. Potomac Ins. Co.*, 858 F.2d 1104, 1122 (5th Cir. 1988) ("[S]ecurities meet the test of 'not entitled to be marketed' only where the promoters knew the enterprise itself was patently worthless.").

fundamental value. Second, both theories incorporate elements of merit regulation into the federal securities laws' disclosure framework.³⁸⁶

The fraud-created-the-market theory and the price-fraud theory differ in several important ways, however. First, and most fundamentally, the fraud-created-the-market theory is a means of establishing that an investor relied on a misstatement or omission, not a means of recognizing the existence of an implicit representation.³⁸⁷ Second, the fraud-created-the-market theory is limited to scenarios in which the offered securities are "patently worthless";³⁸⁸ it is not available when a plaintiff contends that the alleged misstatement or omission merely rendered the offering price too high.³⁸⁹ The price-fraud theory, on the other hand, potentially applies whenever the offering price exceeds the security's intrinsic value, not merely when the security lacks an intrinsic value altogether.

V. CONCLUSION

In conclusion, the price-fraud theory is potentially viable. The biggest sticking point—the presence of a misrepresentation on which to premise the securities fraud claim—is arguably solved because, when setting the offering price of a security, the issuer and the underwriter make an implicit representation that the security's price is rationally related to its fundamental value. If the price-fraud theory were recognized, issuers and underwriters would internalize the risks associated with issuing overvalued securities. As a result, fewer overpriced securities would be issued, disrupting the feedback loop that exacerbates the growth of market bubbles. The price-fraud theory may help prevent the next bubble—and the next financial crisis.

³⁸⁶ See *Eckstein v. Balcor Film Investors*, 8 F.3d 1121, 1130–31 (7th Cir. 1993) (rejecting the fraud-created-the-market theory of reliance because "[f]ederal securities law does not include 'merit regulation'").

³⁸⁷ See *infra* notes 380–82 and accompanying text.

³⁸⁸ See *Abell*, 858 F.2d at 1122.

³⁸⁹ See *Shores*, 647 F.2d at 470 ("If Bishop [the plaintiff] proves no more than that the bonds would have been offered at a lower price or a higher rate, rather than that they would never have been issued or marketed, he cannot recover.").